

Communicating with Virtual Characters

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This paper sketches an overview of the problems related to the analysis and synthesis of face to virtual face communication in a virtual world. We describe different components of our system for real-time interaction and communication between a cloned face representing a real person and an autonomous virtual face. It provides an insight into the various problems and gives particular solutions adopted in reconstructing a virtual clone capable of reproducing the shape and movements of the real person's face. It includes the analysis of the facial expression and speech of the cloned face, which can be used to elicit a response from the autonomous virtual human with both verbal and non-verbal facial movements synchronised with the audio voice.