

Highly Realistic Facial Expressions of Anthropomorphic Social Agent as a Factor in Solving the 'Uncanny Valley' Problem

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Abstract : We present a methodology and our plans of anthropomorphic social agent visualization. That includes creation of three-dimensional model of the virtual companion's head and its facial expressions. Talking Head is a cross-disciplinary project of developing of the human-machine interface with cognitive functions. During the creation of a realistic humanoid robot or a character, there might be the 'uncanny valley' problem. We think about this phenomenon and its possible causes. We are going to overcome the 'uncanny valley' by increasing of realism. This article discusses issues that should be considered when creating highly realistic characters (particularly the head), their facial expressions and speech visualization.

Keywords : anthropomorphic social agent, facial animation, uncanny valley, visualization, 3D modeling

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