

Computer facial animation: a review

ABSTRACT

Computer facial animation is not a new endeavour as it had been introduced since 1970s. However, animating human face still presents interesting challenges because of its familiarity as the face is the part used to recognize individuals. Facial modelling and facial animation are important in developing realistic computer facial animation. Both modelling and animation is dependent to drive the animation. This paper reviews several geometric -based modelling (shape interpolation, parameterization and muscle-based animation) and data-driven animation (image-based techniques speech-driven techniques and performance-driven animation) techniques used in computer graphics and vision for facial animation. The main concepts and problems for each technique are highlighted in the paper.

Keyword: Computer graphics; Data-driven animation; Facial animation; Geometric-based modelling