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(54) **METHOD FOR ANIMATING A 3-D MODEL OF A FACE**

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(57) **ABSTRACT**

A method for animating a 3-D model of a person's face is disclosed. The 3-D face model carries both the geometry (shape) and the texture (color) characteristics of the person's face. The shape of the face model is represented via a 3-D triangular mesh (geometry mesh), while the texture of the face model is represented via a 2-D composite image (texture image). A separate 3-D triangular mesh, called the shape mesh, is used to animate the nodes of the geometry mesh: Each triangle of the shape mesh controls the motion of a plurality of nodes of the geometry mesh that are connected to it. Thus, by moving the nodes of the shape mesh, which are small in number, the nodes of the geometry mesh, which can be very large in number, are animated realistically. The nodes of the shape mesh can be moved directly or indirectly. In the indirect method, the nodes of the shape mesh are moved in accordance with the so-called facial action values, which are even smaller in number than the nodes of the shape mesh.

**8 Claims, 8 Drawing Sheets**

