Magic Morphin Mirror: Face-Sensitive Distortion and Exaggeration

T. Darrell, H. Baker, F. Crow, G. Gordon, and J. Woodfill

From an early age, the image of one's face in a mirror evokes a quality of being connected and disconnected at the same time. One sees an "other," but knows it is one's self. This project explores the boundary between these qualities through a virtual mirror with face-specific image manipulation.

The system combines real-time special effects such as image morphing and texture synthesis with new advances in computer vision for face tracking and expression analysis. By distorting one or more aspects of a user's face in real-time, Magic Morphin Mirror creates a self-referential experience with an image that is clearly neither really oneself nor entirely synthetic nor autonomous.

Faces are central to human communication and yet machines have been largely blind to their presence. This project demonstrates that it is now possible to track and analyze faces in real time for interactive displays.

CONTACT
T. Darrell, H. Baker, F. Crow, G. Gordon, J. Woodfill
Interval Research Corporation
1801 Page Mill Road, Building C
Palo Alto, California 94304 USA
trevor@interval.com