DESCRIPTION

Problem:

Face morphing (two or more facial images are combined) is a known vulnerability to automated facial recognition. While face morphing has been used for benign entertainment purposes, it can be used for nefarious purposes such as identity fraud.

Invention:

A morph detection method that uses one-to-many (1:N) face recognition algorithms to detect the presence of face morphing under certain scenarios.

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BENEFITS

Commercial Applications:

• Detection of morphed images for organizations that accept user submitted application photos during renewal processes.
• Adaptable methodology for eGate systems that can connect to backend databases.

Competitive Advantages:

• User Convenience: Reduced false detection rates when compared to other conventional morph detection algorithms.
• Cost Efficient: Can leverage existing one-to-many face recognition infrastructure by adapting this methodology.

(a) Subject A  (b) Subject (A+B)  (c) Subject B