

LICENSING OPPORTUNITY

A METHODOLOGY FOR DETECTING FACE MORPHING USING ONE-TO-MANY FACE RECOGNITION ALGORITHMS

Patent Application Filed

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.

CONTACT

Technology Partnerships Office (TPO)

National Institute of Standards and
Technology Gaithersburg MD 20899
licensing@nist.gov

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