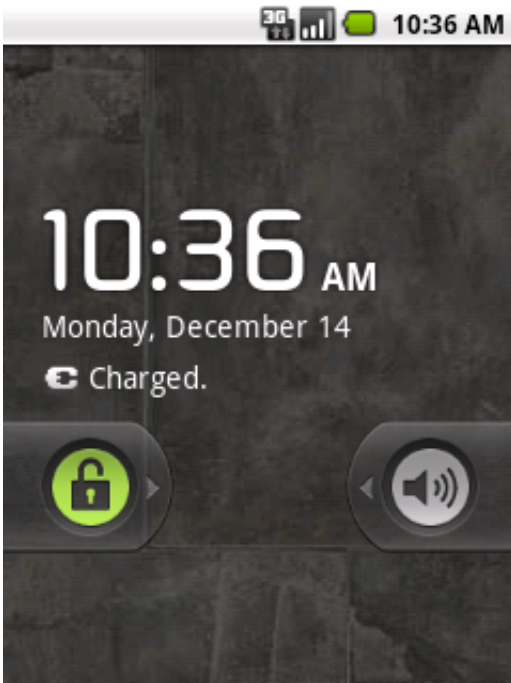![PHYS.ORG]

Google has ideas for funny-face device authentication

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(Phys.org) —Google this year has made it clear that it wants to see a different computer using landscape with techniques that are easier, more reliable than hand-typed passwords for user authentication. Speaking at a security conference in San Francisco earlier this year, principal engineer, Mayank Upadhyay affirmed Google's interest for a time when password obligations are replaced with more secure authentication tokens. While solutions proposed by Google have been in the physical area of hardware

such as finger rings or USB sticks or keys, a patent application revealed this week shows how Google is thinking about Android-type authentication through making funny faces. According to the filing, authentication via funny face can be used to unlock the phone. The patent suggests facial expressions as the next frontier of password456%.

Michael Sipe, Henry Schneiderman and Michael Nechyba are the names behind the [patent](#) that was filed in June 2012 and made known this month, for Facial Recognition. "A computing device may authenticate a facial image input using facial recognition technology." According to the document. the method includes face maneuvers.

"The method of claim 1, wherein the at least one facial landmark comprises at least one of an eye, an eyebrow, a mouth area, a forehead area, and a nose, and wherein the indicated facial [gesture](#) includes at least one of a blink gesture, a wink gesture, an ocular movement, a smile gesture, a frown gesture, a tongue protrusion gesture, an open mouth gesture, an eyebrow movement, a forehead wrinkle gesture, and a nose wrinkle gesture."

A key phrase in the patent filing is "facial landmarks," which is the idea in the software, to track a unique "facial landmark." Moving the face in a particular way would result in a marker for security. The design would outsmart a thief's attempt to present a false image such as a fake photo doctored up with animated gesture. The special recognition software would provide ways the software could check to see that the device was being shown the real person's face.

The patent indicates [Google](#) is still thinking hard in the direction of password alternatives; the names also indicate Google would be leveraging its investment in PittPatt, the Pittsburgh startup that was in turn a Carnegie Mellon spinoff, specializing in [facial recognition](#) technology in photos and videos, which Google purchased in 2011. At

the time, technology bloggers were speculating how Google might eventually use the expertise. They were not sure if Google was going to apply their expertise toward inhouse use or external products. The three applicants in the patent had their roots at PittPatt. Sipe was vice president of product development and a former researcher at IBM. Schneiderman was CEO and his special focus was on computer vision with an emphasis on parttern recognition on images and image sequences. Michael Nechyba was vice president of research and development.