

Fatima Butt

A password you will never forget

What is the Apple ID and how does it work?



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Instead of using the troublesome finger touch ID on the iPhone, the Face ID has been finally introduced which allows individuals to unlock their phone with their face. Infrared light rays on the iPhone X analyses and uses more than 30 000 invisible dots to create a detailed map of our face which is encrypted and protected by the secure enclave. The tech of the camera is put in the top area of the phone called the True Depth Camera system which scans the infrared image into a mathematical representation. The True Depth camera accurately remembers an individual's face providing secure authentication enabling the Face ID to map out the geometry of our face. The system is mostly focused on the forehead, nose and eyes area. This ID can be used to authorise purchases online from Apple App store, Apple pay payments as well as iTunes store. Security is further protected through the Security Enclave which stores the mathematical representations of a person's face.

The Face ID has been made to adapt to facial changes such as wearing makeup or have facial hair. However, if there is more significant change to the face such

as wearing a scarf or removing a whole beard, then the individual is required to put a passcode before the identity is updated. The Face ID is also developed to work at any time of the day, whether it is outdoors or indoors. The Face ID also is designed to work with accessories such as glasses, sunglasses or contact lenses. It works best if the eyes are looking straight at the camera and the phone is held 10-20 inches away from your face.

International safety standards have been met through the testing of the true depth camera on the iPhone as well as iPad pro. The camera incorporates tamper detection features and if tampering is detected the system is disabled for security reasons. Apple states that the chances of one person matching another face is 1 in 1,000,000 however is the statistics are lower if the person shares a genetic relationship with the person.

To set up a face ID an enrolment process is required. By clicking face Id and Passcode In settings tap enrol face which allows the iPhone to use front facing camera to display your face within a circle with green ticking marks

surrounding it. The enrolment software will overlay quasi 3d markings on screen to show the person's facial centre and eye line. Then they are required to move their face in a circle so that the facial features are captured.

Live depth mapping is also now available to be used for live tracking for Animoji which is the animation of a person's face moving in an emoji's face. This is done through the matching of facial expressions as well as lip movements and other selfie special effects so that the emoji mimics the persons expressions.

However, despite all these amazing features, a concern remains for people a government could force changes that would pass or extract facial identification information, or perform comparisons with faces that a government is looking for. It will be interesting to see how developers make us of this additional security level.

The face id overall provides ease of use, as the person does not have to remember any sort of password which also prevents the issue of

getting locked out of your own phone and disabling it. It is also easy for old people to use who may forget their password, as well as disabled people who do not need prior knowledge at all.



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Here are a few steps on how to set up your Face ID.

1. Click the setting icon on your phone then the Face ID and Passcode tab.



2. Then click set/reset Face ID.



3. Complete the steps and your new id will be set



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