Jessica Quinton

Apple ID and safety technology

Safety features used with iphones and technology developement in forming ID.

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Apple iPhone has developed highly rated technology in apples years in designing iPhones since 2007-2021, the latest iPhones and current ones being developed have a technology that benefits users with their day-to-day lives. Apple users, as many smartphone users find the most important part with using smartphones is the safety features and the new technology that has been developed for the newest products.

This article has researched information about the safety features for the users with an iPhone and the formed technology that developed the ID safety technology and the details behind this feature.

Apple ID

What is an Apple ID and what is it used for? Many new users are often confused as to what an apple id is and why apple customers need one. Apple ID is the way apple identifies an individual user, an ID tracks your purchases that is located within the 'Apple app store' the apple ID is important to have to run an apple iPhone as well it can seamlessly make your other apple devices work together.

Security and privacy developed in an iPhone? protection withtin phones is a main concern for all users, Apple has developed iPhones to be secure, there is a built-in security and privacy

protectors, iPhone have been designed to protect your data and privacy, and having an apple ID provides access to data and iCloud to your account information for services like app store and apple music, apple ID has been proven to be a safe and well-developed secure way to keep all your information safe.
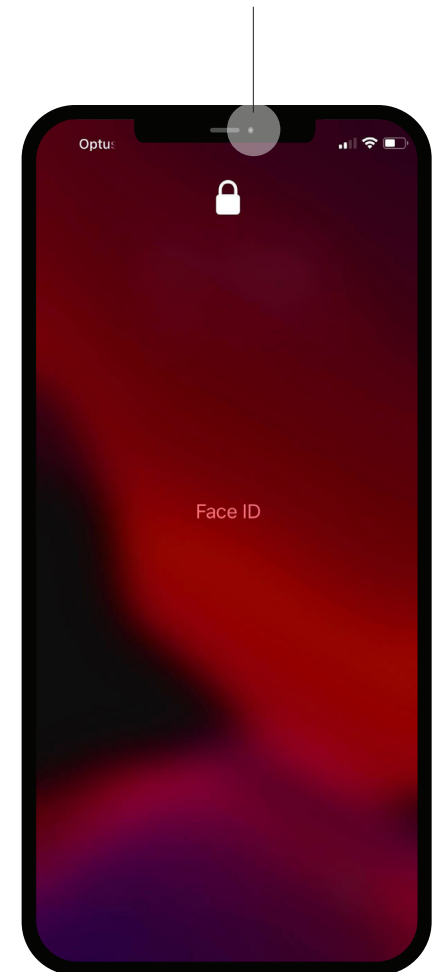
Safety technology

Safety technology features are always been updates with apple iPhone, the most recent development that has been useful for all apple iPhone users is the apple face and touch ID.

What is the Apple face and fingerprint ID? In recent years apple has developed a system that recognizes the face in newer devices and or finger print in older devices. Apple developed the facial- recognition technology to replace the ID finger-print scanning system.

How does the facial ID technology work?

The facial-recognition system has several hardware factors involved in the Face ID these are "True-Depth camera system, neutral network and bionic chips", the development behind this system consists of sensors, Cameras, and dot projector which is used with the selfie camera that is at the top of the phone that is displayed as a 'notch' to create 3D map of face.

Selfie camera notch- used for face ID

Face ID

True depth camera system

A glance of a face the iPhone will detect whether it is the right face using the true depth camera system with a flood illuminator
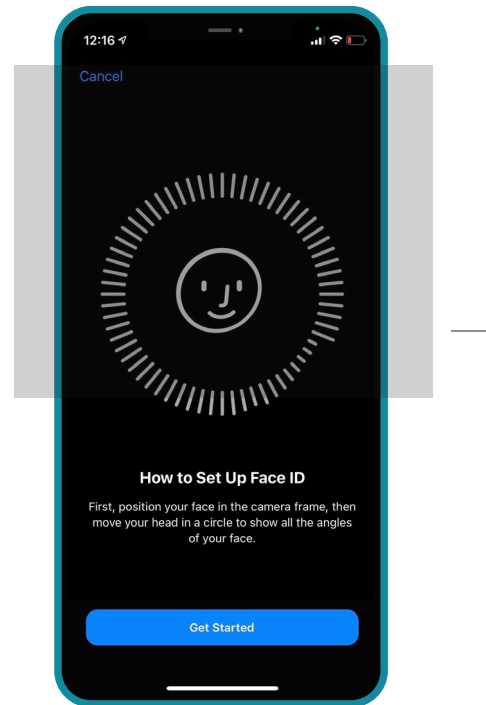
The dot projector

Is a facial recongised projector developed with iphones that will project out over 30,000 invisible infrared dots. This system uses the infrared image and the infrared dots and pushes them through neural networks to create a mathematical model of the face.

Neural Networks

When the facial recognition system has been setup with the users face it will be stored in the device, the iPhone will check scans, also known as mathematical models of the users face, when correct face is recognized with matched face saved in the device iPhone will unlock.

30,000 invisible infrared dots

facial recognition system

How to Set Up Face ID

First, position your face in the camera frame, then move your head in a circle to show all the angles of your face.

Get Started

Bionic neural engine

The bionic neural engine has been developed by apple in order to process the data needed for the face ID, the chip in the system has a specialized hardware built for the machine setup, the engine handles hundred of billions of operations, and therefore is used for technology such as real-time facial recognition.

Research found in an academic journal found surveys involved in whether apple users with iPhone with touch ID used the touch ID or passcodes more and whether they found it easy to setup.

In conclusion, iPhone has a great systems in relation to apple ID and safety technology and apple will and have said they will continue with new upgrades with their products, the future for apple could develop their ID system.

References:

Apple website (n.a.) *Child Safety.* (2021). Expanded protection for childern. Retrieved 12 October 2021, from https://www.apple.com/child-safety/

Apple website (n..a) *Use the built-in security and privacy protections of iPhone.* (2021). iPhone user guide. Retrieved 12 October 2021, from https://support.apple.com/en-gb/guide/iphone/iph6e7d349d1/ios

Cherapau, I., Muslukhov, I., Asanka, N., & Beznosov, K. (2021). *On the Impact of Touch {ID} on iPhone Passcodes*. Usenix publication. Retrieved 12 October 2021, from https://www.usenix.org/conference/soups2015/proceedings/presentation/cherapau

Tillman, m., (2021). *What is Apple Face ID and how does it work?*. [online] Pocket-lint. Retrieved 12 October 2021 from https://www.pocket-lint.com/phones/news/apple/142207-what-is-apple-face-id-and-how-does-it-work
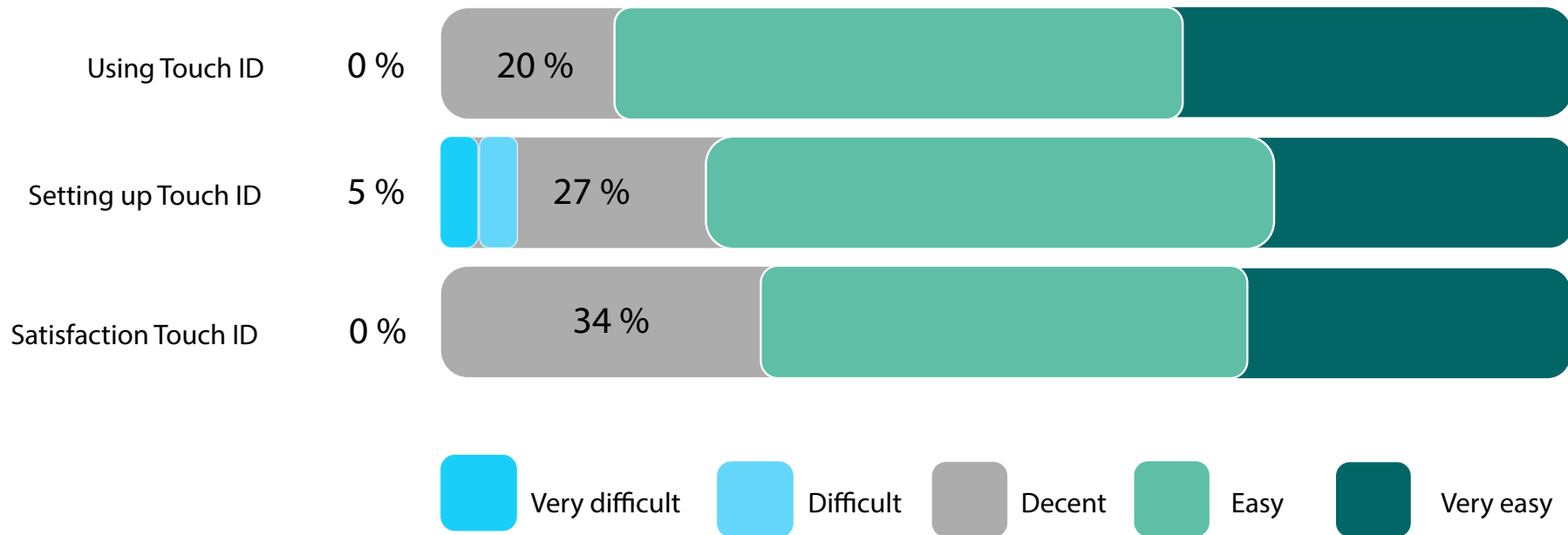
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Figure 1 touch ID participants answer for questions "how hard was it to set up Touch ID" Over all how satisfied they were with using Touch ID