Jessica Gray and Stephanie Woodhouse
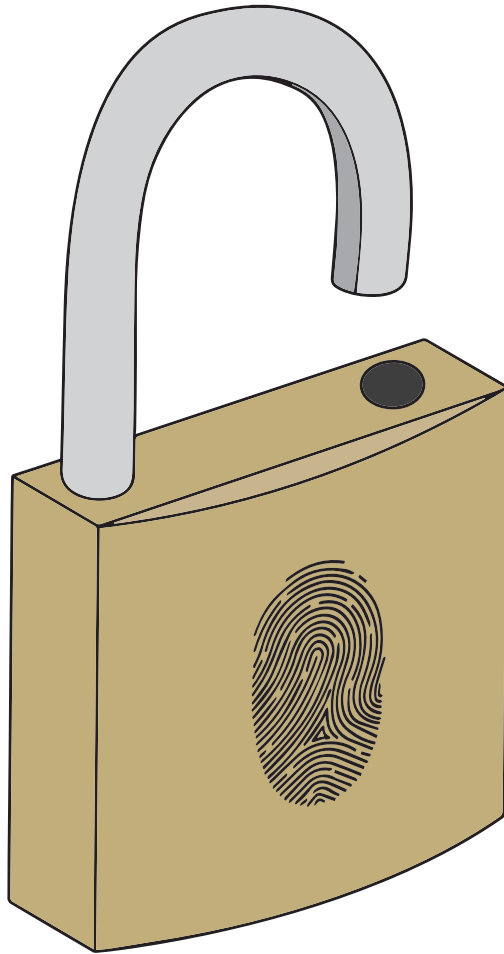
Unlocking the Past

The history of unlocking your iPhone

Enter a passcode

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Unlocking the Past

Jessica Gray and Stephanie Woodhouse

Everyone who owns or has used an iPhone is well aware of the locking feature to prevent un-wanted users from accessing the phone. It is a feature heavily relied on by almost all iPhone users. Passcodes were the first aspect of security on all apple products and are still used as a back up should newer security features such as touch ID or new Facial ID fail.

 In 2007 apple released the very first iPhone which came with the original 4 digit passcode or optional password. To set up these features the owner of the phone would have to manually put in a four digit code of their choice which would then be needed to access the phone at any time. It would also be required before making any adjustments regarding the security. A secondary security feature was to prevent codes being hacked via excessive passcode attempts. If too many incorrect passcodes was attempted, the iPhone would be locked for 1 minute. For every incorrect passcode after that, the phone would lock for a longer period of time and so forth.

In 2013 with the introduction of the iPhone 5s, a new feature was implimented. This was the introduction of 'Finger Print Recognition' or just Touch ID. Touch ID sensor is located on the home button of the iphone. The Touch ID sensor is protected by a sapphire glass lens, allowing the sensor to remain focused and safe. When the sapphire lens is is triggered, the capacitive touch id sensor activates and takes a high res snap of your finger. This snap is stored in the phones memory, allowing your personalised fingerprint to become a way of unlocking your iphone.

Over the course of years it has been available, many apps also take advantage of this feature within the iPhone. Applications including banking, cardless paywave and other private information stored on apps can only be accessed with the touch ID even after the phone has been initially unlocked.

So with many users relying on touch ID to store their sensitive information, many would want to know how accurate the phone can read a finger print. The touch ID is based on characteristics such as arches, loops, etc. as fingerprints are

unique. Even identical twins will have a different set of finger prints. Touch ID also requires the user to have a passcode in place to use the touch ID feature. The user will have to put in the passcode every time the phone restarts or if the phone has not been ulocked within 48 hours.

In 2014 and with the iPhone 6, an update was released to allow passcodes to be made up of 6 digits rather than 4 and makes it much harder to guess the passcode to a phone. The updates was also to prevent "obvious" 4 digit passcodes such 1 2 3 4 or 0 0 0 0 or even birth years from being used.

Most recently in 2017 with the brand new launch of the iPhoneX marking 10 years since the first iPhone, an even newer security feature has replaced touch ID. The introduction of 'Facial ID' is the newest member of the apple security family.

 Face ID uses a combination of light projectors and sensors to take several images of facial features. When setting up

facial recognition, a large number of snaps will be taken of your face in order to adjust to several angles when unlocking your phone with facial recognition. Infared light is used to illuminate the face while using facial recognition to allow the id to work at any time of the day. Should the facial ID fail or not be able to detect the face (e.g. not enough lighting) the phone will ask for a passcode same as touch ID. It is yet to be seen if facial ID will be so broadly used in applications such as touch ID currently is, however the new iPhoneX does not have touch ID available to its user.

It's hard to tell where the next security update may take iPhones, possible voice recognition, which is already being used in competetors phones. It is something we are all going to have to just wait and see.
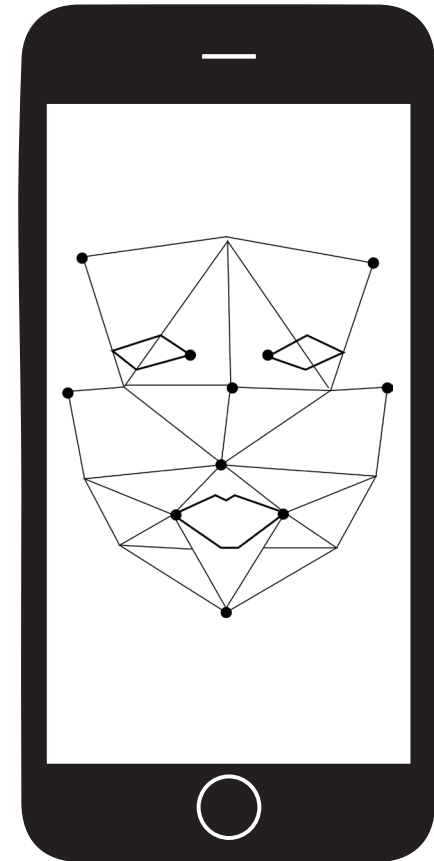
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Timeline of Apple's secutiry upgrades

2007
Apple releases the first iPhone which comes the 4 digit passcode or optional password.
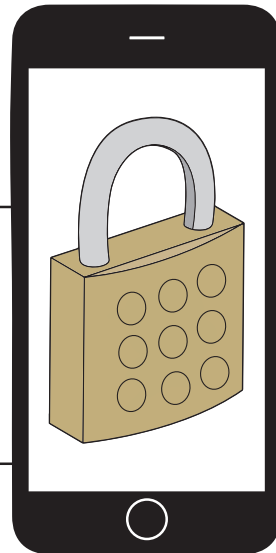
2013
The iPhone 5s introduces 'Touch ID'
.
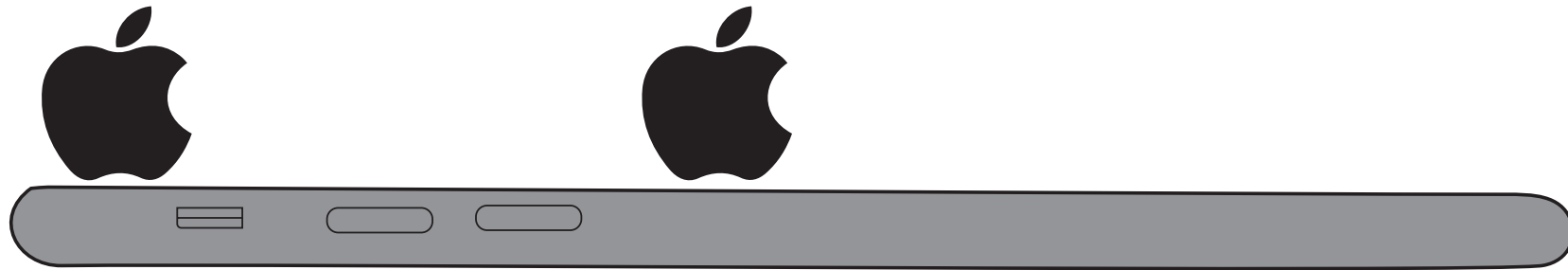
2014
An updates is released to upgrade passcodes to 6 digits and elimate 'obvious' passcode use.

2017
Apple releases the iPhoneX and introduces 'facial ID'.

Passcodes

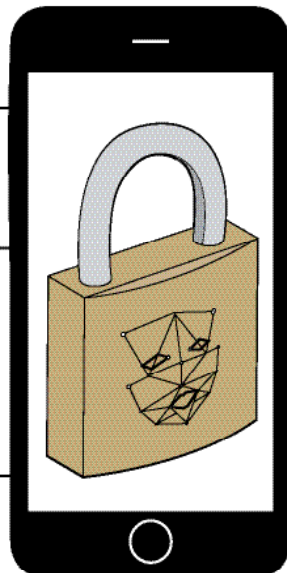Reliable back up measure when touch or facial ID fail

After so many failed attempts the iPhone will be locked to prevent hacking.

Optional 4 digit, 6 digit or written passcodes.

Can be used by others who know the passcode.

Touch ID

Can be used quickly and under any lightnig conditions.

Accurately personalised. Even identical twins cannot access each others iPhone.

Will still require the passcode to be enetered upon re-boots, failed finger scanning and when the phone has not been opened for 48hrs.

Multi-purpose use. Many apps including mobile banking allow touch ID access.

Can be used as apple ID password during iTunes or app store purchaces.

Facial ID

Newest form of security to apple and only available on the iPhoneX.

Only works in limited lighting conditions

Facial ID has no Touch ID options

Can read your face at multiple angles.

Allows the usage of the new "Ani-moji" feature of the iPhoneX