Facial recognition technology is extremely interesting to me. Often times, I see movies or TV shows using high technology security in forms of fingerprints or facial recognition. These movies are generally thriller or scientific fiction movies that depict the technology from the future. I thought this technology was cool because it gives insight to what the future could be. A few years ago, this security was introduced and more prominent in our daily lives. Apple’s iPhone uses fingerprint technology as a passcode lock. I was drawn to this area of technology because I wanted to use a phone that unlocks with your fingerprint.

Steve Job’s Apple has included fingerprint recognition in the form of “Touch ID” starting with the iPhone 5s. Since then, the most recent iPhone, iPhone X, has gotten rid of Touch ID and added facial recognition, “Face ID”. Both forms have their pros and cons. Touch ID will not be accessible if you have wet fingers or if you are wearing gloves. Face ID will not be accessible if you’re wearing a mask. In Zac Hall’s article, “iPhone X Face ID Versus Touch ID - Which is Faster?” it was found that the Touch ID was faster at unlocking the phone than Face ID. The home screen of the phone was accessed in “an average of 0.91 seconds” using the Touch ID while the Face ID took a total of 1.8 seconds (Halls). Because the iPhone X is so new, the Face ID still has room for improvement. The Touch ID feature has been changed and improved since it had first been added to the iPhone 5s. In addition to simply security, the iPhone X also allows users to
Apple’s Touch ID is able to recognize multiple different fingerprints by collecting mathematical representations of the fingerprints. It identifies the basic characteristics of each fingerprint, such as the arch, loop, and whorl. It is able to read the fingerprint at all angles because it compares it to the “enrolled fingerprint data to identify a match and unlock [the] device” (Apple, 2018). Apple’s Face ID is designed to recognize the user’s face by “projecting and analyzing over 30,000 invisible dots to create a depth map of [the user’s] face and also capture an infrared image of [the user’s] face” (Apple, 2018). The Face ID adapts to the user’s face even with makeup, scarves, or sunglasses on. The Face ID is also designed to work in all different types of lightning.

This technology has brought what seemed like futuristic technology that I only saw on TV to real life daily applications. This evolution has made phones even more convenient to access. Even though this application is cool, in the grand scheme of iPhones, it does not add to the actual Apple program the phone entails. However, in comparison to the Touch ID that has been included with the iPhone 5s up until the iPhone 8, the facial recognition was a big aspect described in the keynote.

I think Apple will continue improving its Face ID to be faster at recognizing faces. There is also the question that twins can unlock each other’s phones with the Face ID. I think Apple can improve by even more detailed facial recognition. In addition, there is a function on the Face ID that allows unlocking the phone without iris recognition. In that case, someone can unlock the phone while the user is asleep.
Hall, Zac, and Zac Hall @apollozac Zac covers Apple news and product reviews for 9to5Mac and hosts the weekly 9to5Mac Happy Hour podcast. “iPhone X Face ID versus Touch ID - which is faster?” 9to5Mac, 2 Nov. 2017, 9to5mac.com/2017/11/01/face-id-versus-touch-id-speed/.
Technology portrayed in TV shows may be exaggerated but still show some truth in real life. The show “Black Mirror” is a social commentary on technology and how society responds to different situations. In one episode of “Black Mirror”, the main issue was technology used by parents and its effects on parent-child relationship.

In “Black Mirror”, each episode has a different plot and different characters. In season 4 episode 2 of Black Mirror, “Arkangel”, a technological system that allows parents to take care of their children is introduced. This system plants a chip in the child’s head and is connected to a tablet-like system that the parents use. The parents can see what the child sees, track where the child is, see their current health, and sensor what the child sees and hears. The single-mother Marie Sambrell registers her young daughter Sara in a free-trial of the Arkangel. This provided some benefit in the beginning because she was able to ensure her daughter’s safety. However, as Sara grew older, she became annoyed that she could not see any forms of stressful stimuli. She pricked her finger in order to produce blood and lashed out in violence. After being examined by a child psychologist, Marie was advised to take the censorship off and not use the tablet anymore.

The system Arkangel is an expansion on tracking and censorship. The tablet that the mother views her daughter’s perspective on is similar to the tablets we have now. Tablets are pretty affordable now and generally everyone in developed countries have access to them. However, there are no systems like the Arkangel. There are certain eye trackers that allow one person to see what the other is viewing through Bluetooth connected eyewear and tablet. This device is pricy but is technically available to everyone. There is not a lot of use from the tracker besides for research purposes. The Tobii eye tracker is a device that some businesses use to gather research information on consumer activity. When the
participant puts on the eyewear, their viewpoint can be seen on the tablet. Additionally, their pupil activity is tracked to see what item they are focused on and how often by using an infrared map (Tobii, 2018). Focusing on the parental side of the Arkangel, a wearable tracker named “FiLIP” is a real-life device (FiLIP Technologies, Inc, 2016). This device allows parents to track their children through a watch and an app. This does not allow the parents to see the perspective that their child sees, but it allows their child to contact them in incidents of danger. This device is also generally available to everyone in developed countries. In terms of censorship, Google’s “Family Link App” “allows parents to approve or block apps that their kids want to download from the Play Store, monitor their screen time and the apps they are accessing, set device time limits, and remotely lock their kid’s device for bedtime or studying” (Carman, 2017). This app is available to anyone who has an android phone. This technology censors what children see but not to the level of the Arkangel.

In this show, the technology was solving the general problem of keeping children safe. However, it took it to the next level of “helicopter parenting” when it censored stressful stimuli. The main problem depicted on the show was that children were not exposed to things normal children are exposed to. This numbs the child’s sense of pain and stress. Because Sara could not see blood or guns or hear swear words, she began drawing pictures of terrible events in order to test her limits. At the end of the episode, Sara finds out that Marie has once again started using the Arkangel to oversee her and ended up hitting her mother with the tablet until she was bloody because her censor did not allow her to experience what was happening fully. In real life, the wearable gps tracker also exhibits problems. Children are not self-reliant if they just contact their parents in any sign of distraught. Tracking children’s activities can also lead to children who are more inclined to lie to their parents or be involved with risky behavior due to being too sheltered.

The technology played a prominent role in Sara’s childhood because it shaped who she was. She was isolated in school because she was not able to experience anything that was stressful. This impaired her hearing and seeing of certain things that other children were free to experience. This had a
psychological impact on her because normal children would not cut their own finger in order to 
experience pain. This technology allowed the mother, Marie, to be overprotective and selfish in sheltering 
her daughter. This protectiveness ultimately pushes Sara further away rather than keeping her close. 
Additionally, the Arkangel was not ethical because even in the show, it was discontinued due to privacy 
reasons. Such devices in real life are not necessarily unethical because it does not push to the limits of the 
Arkangel.

Parental technology means the best for children as it keeps parents sane; however, it does not 
only have benefits. Being too over-protective of children using technology can lead to children 
disobeying parents even more than normal. As seen on the show “Black Mirror”, censorship and tracking, 
when used wrongly, can destroy parent-child relationships.
About Touch ID advanced security technology - Apple Support.

www.bing.com/cr?IG=B56EC7B7F2A948AD815AF37F7632872A&CID=30AC281A631D6A
A914A4239C62B26BB6&rd=1&h=guW8bxJ7FFUiULUEt6fIz_1gOvvqKvCs3lUBnoA3ygg&v
=1&r=https%3a%2f%2fsupport.apple.com%2fen-us%2fHT204587&p=DevEx.5068.1.

“About Tobii.” Tobii is the world leader in eye tracking, 14 Oct. 2015,

www.tobii.com/group/about/.