



Chantelle Arancon

The Home Wrecker

With the removal of the home button, the iPhone has been given more room to grow.

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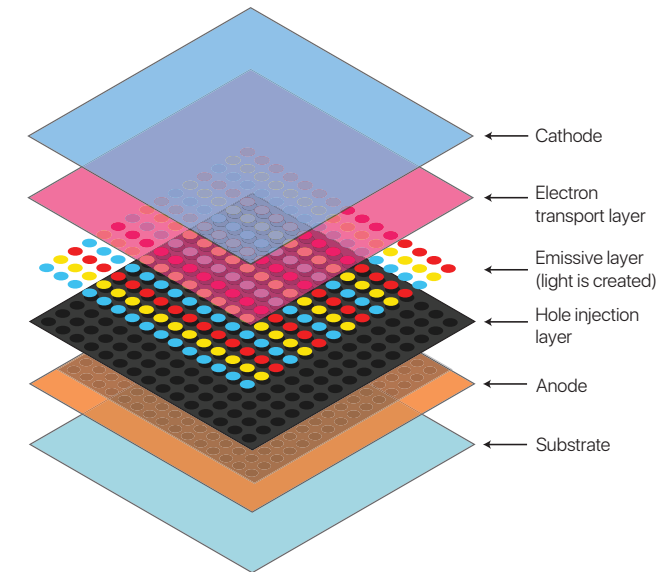
The iPhone X brought Apple's biggest display in 2017, flaunting an edge-to-edge screen measuring 5.8 inches diagonal. In the words of Jony Ive, Apple's chief design officer, "For more than a decade, our intention has been to create an iPhone that is all display. The iPhone X is the realisation of that vision." However, this came at the cost of the home button, which had gone through a journey of being given many functions to being completely obsolete.

Known as the only button on the screen of the iPhone, the home button took you to the main screen of the user interface. It was able to open up the multitasking manager, which revealed all the running apps, and it enabled the user to open up Siri. In the iPhone 5S, a home button with integrated user biometric sensing (touch ID) was first introduced. Then in the iPhone 7 many people were shocked to find out that the home button was not really a button, but more of a static version that was force-sensitive that emitted vibrations to make the user feel like the

button was depressing. Because of all this development on the lone button the decision to remove it from the iPhone X surprised many.

To compensate for the lack of a home button, the new iPhone supported new swiping features for users to naturally navigate the phone. Though these were designed to be fast and fluid to replace the fear of having to adjust to a new screen, some consumers have complained about this new user interface, calling it "a major step backward" and "the cause of many frustrations."

The lack of a home button has also given the Apple room to improve screen quality, with the introduction of an **OLED (organic light-emitting diode)** display, known for the best system-wide colour management in a smartphone. This made it the first iPhone to use OLED, enabling it to produce more vibrant, crisp images. The OLED system is structured with solid arrays, made from layers of organic thin-film materials. Films are placed between two conductive layers that cause electrons



OLED layers

to migrate to “holes”. The electrons then recombine and emit heat, causing the screen to adapt to the temperature of the light.

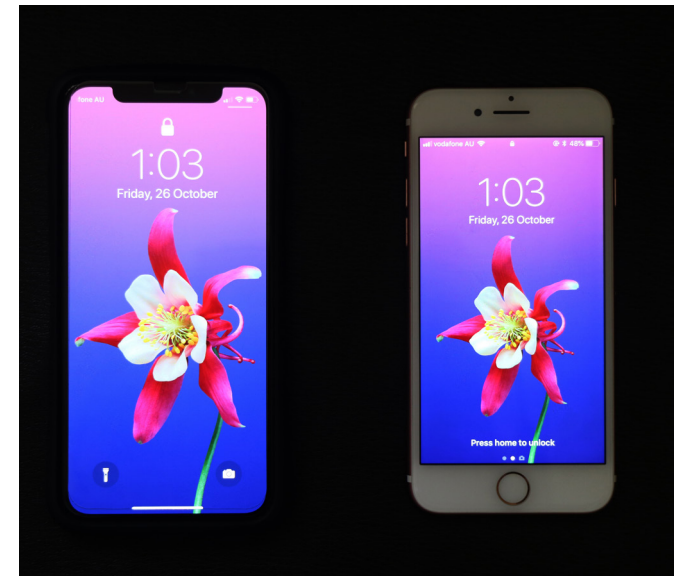
In summary, when compared to LED screens, OLED emits light created within every individual pixel rather than having a separate backlighting system. This enables the iPhone to have an infinite contrast ratio. OLED panels also use less battery than LED panels, giving the phone increased battery life. A known side-effect of OLED displays, however, is what is known as “burn-in”, when a remnant of an image is still seen after a new image has appeared after it has been left for long periods of time. Apple has since addressed the issue, saying that the Super Retina display reduces the effects of the burn-in.

One feature that has caused much debate is the “notch” that sits at the top of the iPhone X screen. Despite the notch holding both the front-facing camera and the TrueDepth system that powers Face ID, many users have complained about the

interference the notch has within their displays.

The top and bottom bars of past iPhones, known as “bezels”, have always housed the speaker bar and front-facing camera. Besides the home button, these were integral parts of the iPhone’s display. As the front display now contains much more technology required for face recognition it is no wonder Apple did not feel the need to hide them. The notch also provides an iconic look for Apple, as it allows the iPhone to stand out amongst other all-display smartphones.

Dubbed “the future of smartphones”, the innovation Apple has brought through the iPhone X has reached wide success. Apple’s motivation of constantly replacing the old to make room for the new and better has definitely taken a toll on the multi-purpose tool that was the home button, but for Apple’s best-selling iPhone, the sacrifice seems worth it.



Note the smoother contrast in the left (iPhone X) screen

References:

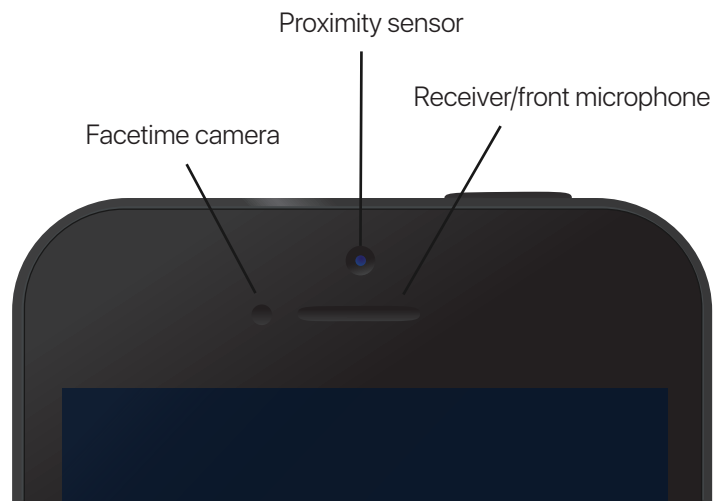
Coffey, V. C. (2017). The age of oled displays. Optics and Photonics News, 28(11), 34-41. Retrieved 9/10/18.

The future is here: iPhone X, Apple Newsroom, 13 September 2017 <https://www.apple.com/au/newsroom/2017/09/the-future-is-here-iphone-x/>. Retrieved 13/10/18.

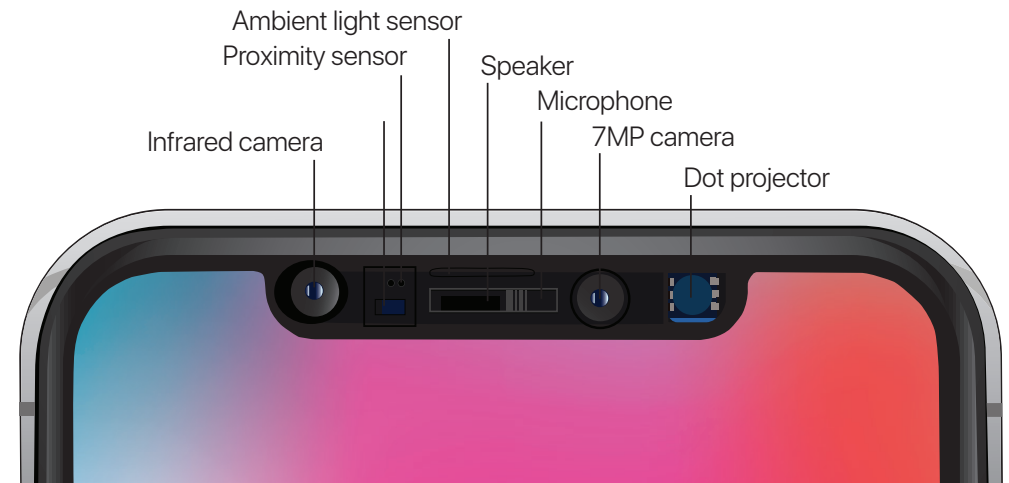
Hartmans, A 2017. The iPhone X might have an OLED screen — here’s why that’s a huge shift away from past iPhones. Tech Insider. <https://www.businessinsider.com.au/oled-screen-apple-iphone-x-explainer-2017-9?r=US&IR=T>. Retrieved 13/9/18.

Eadicicco, L. (2017). Here’s Your First Hands-On Look at the iPhone X, Apple’s Boldest Smartphone Yet. Time.Com, 1. Retrieved 13/9/18.

The importance of the “notch”



The top iPhone 6 bezel



The iPhone X notch