Renee Singh and Alexia Francescucci

Say Cheese!

The evolution of the iPhone camera



Say Cheese!

Renee Singh and Alexia Francescucci



When Apple launched the iPhone in 2007, no one imagined that in 10 short years it would become the world's most popular camera and herald a new era of visual communication.

For almost 200 years, Cameras have been a sacred part of history as a plain box that took grainy, black and white photos that have now been replaced by ultra-wide lenses and live photos. Creators at Apple have changed the way a camera should look and feel when taking a photo with its high visuals and creative technological advances.

In 2007, the first iPhone was released to the public having only one lens and very small configurations made available such as fixed focus and two-megapixel photos. The iPhone camera has always been transformed into something better and easier to use for Apple users much like the iOS features. Apple wanted to make something better for camera users by making the iPhone become an innovative technology that is easy to use for amateur photography.

These are the camera features Apple has created to further enhance the capabilities of photography a user has in their hands.

A panorama is a wide-angle shot of any particular scene. Unlike any regular wide-angle images, it's longer than a typical photo and covers more space by capturing multiple images and stitching them together to make one long one. Apple introduced the panorama feature in 2012 with the iPhone 5, however taking panoramas were already possible through other apps prior to this.

Live Photos were introduced in 2015 in the iPhone 6S series. Live Photo is a feature developed by Apple that allows a single photo to both to be a still image and when activated, including a few seconds of motion and audio.

Live Photos work using a background feature that many iPhone users aren't aware of. When you open the iPhone's Camera app, the app automatically begins taking pictures, even if you don't tap the shutter button. This is to allow the phone to capture photos as quickly as possible. As for storage, a live photo only takes up about twice as much space as a normal photo.

The iPhone 7 was the first dual-camera phone to be released, and thus opened up the possibilities of capturing photos with a certain depth of field. The depth of field in a camera is the distance between the closest and farthest point at which objects in a photo can appear sharp. Portrait mode uses the multiple cameras to create the same effect, allowing you to compose a photo that keeps the subject of your photo sharp while keeping a blurry background.

The XS and XR phones were the first to have Apple's Smart HDR (high dynamic range) feature. Thus allows the camera to capture better photos in high contrast situations. The camera on this phone takes several photos in rapid succession at different exposures and blends them together.

The ultra-wide lens is a third added camera on the iPhone 11. The Ultra-wide lens captures four times the viewing area of older camera models, allowing users to fit more into their pictures. Not only can you fit more of the landscape in your image, but more friends too in selfie mode. In fact, the iPhone 11's ultrawide lens captures a 120-degree field of view. For comparison, the average human eye has a 135-degree field of view.

Night mode is a new feature seen on the iPhone 11 and 11 Pro, and it is designed to capture better photos in low light settings. With Night Mode, pictures are clearer, brighter and the colours are more natural all without using flash. When you tap the shutter button, the camera takes multiple images while optical image stabilisation steadies the lens. Then, Apple has programmed their software to align those images, discard blurry sections and adjust the contrast. It also fine-tunes colours and de-noises the image to produce a clear and detailed picture.

References:

Apple, (2019) iPhone 11 Pro and iPhone Pro Max: the Most powerful and advanced smartphones. [image] https://www.apple.com/au/newsroom/2019/09/iphone-11-pro-and-iphone-11-pro-max-the-most-powerful-and-advanced-smartphones

Arthur, C. (2012) iPhone 5's panorama function covers all the angles. Retrieved from 15 October 2020, from https://www.theguardian.com/technology/blog/2012/sep/19/iphone-5-panorama-photographs

Chesher, C. (2012). Between image and information: The iPhone camera in the history of photography. 1-22. https://www.researchgate.net/profile/Chris_Chesher/publication/259255900, Between_image_and_information_The_iPhone_camera_in_the_history_of_photography/links/57a3096d08ae4556853388d0/Between-image-and-information_The-iPhone-camera-in-the-history-of-photography/ord

Cruz. Gomez. E., T. Meyer. E. (2012) Creation and Control in the Photographic Process: iPhones and the emerging fifth moment of photography. 203-221

https://www.tandfonline.com/doi/full/10.1080/17540763.2012.702123

Hristov. V. (2019) iPhone Camera Evolution: how iPhone cameras changed from iPhone 6 to iPhone 11 Pro Max. Retrieved from 15 October 2020, from

https://www.phonearena.com/news/iPhone-Camera-Evolution-History-6-vs-6s-Plus-7-8-Plus-XR-XS-Max-11-Pro-Max_id119407

John. S. (2019) How the iPhone's New Ultrawide Lens Actually Works (and When You Should Use It) Retrieved from 15 October 2020, from

https://inymag.com/intelligencer/2019/11/how-the-iphones-new-ultrawide-lens-works-and-what-its-for.html#:~-text=ln%20fact%20%20the%20iPhone%2011s,120%20degree%20field%20of%20view.&text=The%20ultrawide%20 lens%20creates%20foursees%20castured%20in%20the%20frame.

Malik. O. (2016) With the iPhone 7, Apple changed the camera industry forever. Retrieved from 15 October 2020, from https://www.newyorker.com/business/currency/with-the-iphone-7-apple-changed-the-camera-industry-forever



iPhone and DSLR Camera Sales Comparison

