Hamish White

Everybody say Cheese!

The iPhones camera features has introduced a way to take better photos from a smaller camera.

Everbody Say Cheese!

Hamish White

The camera market has always been ruled by big brand names such as Canon, Nikon and Sony but has the new age of photography come? Apple has consistently brought out cameras in the iPhone product since 2007. These cameras have evolved in quality and have transformed how photography is appraised in our society.

The iPhone meant that there was a way to take high-quality photos without the need to carry and camera around. There was a new technology called mutual capacitive multi-touch which mean that now zoom options were available.

To understand how the cameras in our phones work we must first understand how photos are taken on regular cameras. The cameras in our iPhones contain a similar lens and shutter to a digital camera. This means that these cameras have the same components, including shutter speed, ISO and aperture.



Shutter Speed



Aperture



Shutter speed is defined as the length of time the camera shutter remains open affects the exposure. The aperture controls the amount of light the come through the lens while the ISO Determines how sensitive that light is. The iPhone automatically determines the best settings for the image and takes the photo.

The clever part of the photography process in the iPhone is the conversion from light to JPEG. A JPEG is the compression of image data into a file. These are then saved to our phones in the camera roll. The pixel data is usually affected by the kind of phone you have. Apple has worked to make the pixel capacity large meaning better quality photos.





Now, what's different from a digital camera? Apple has created different features that have not been applied to these kinds of phones before. These features include 3 cameras focusing on different parts of the image as well as a portrait mode and night mode.

First, let's talk about the portrait and night mode. Both settings have been made to create an automatic way to take photos that weren't available on the iPhone before.

The first of these modes is the portrait mode. This mode allows a change in depth of field, focusing on the main character in the image while putting the rest of the photo in a blur. When this mode is selected it adjusts the aperture so that the depth of field is shallower and therefore focusing on the main object in the image. Portrait Mode



Normal



Blurred Portrait Mode



Black Portrait Mode



Night Mode



Without Night Mode



With Night Mode

The three-camera lens each assist in doing a different kinds of photos. These three different kinds of photos that can be taken with this are wide, telephoto and ultra-wide.

A wide photo is the normal setting we are used to. This type of lens is used to take normal photos that don't need zoom adjustments.

Telephoto works by enhancing the resolution at a further distance. This means instead of the pinch in zoom that only gives you a closer zoom at the pixels this gives you an optical zoom that allows a closer look at the image without ruining the resolution of the photo.

Ultra-wide gives a wide-angle view. This view will capture aspects of the photo that would not have been captured otherwise. This lens uses a fisheye lens that is matched with the other cameras. Distorting the edges while still capturing the whole view.



52mm focal length, larger f/2.0, 6-element lens, optical image stabilisation, focus pixels

With the growth of social media and sharing, there has never been a more photography-filled world and Apple is the start to that. This has changed the world of photography by adding in different functions, evolving technology in an everevolving visual world.

References:

Clover, J. (2019, September 30). Night Mode on iPhone: Everything You Need to Know. Retrieved from https://www.macrumors.com/guide/night-mode/

Coldewey, D. (2019, September 10). Why does the new iPhone 11 Pro have 3 cameras? Retrieved from https://techcrunch.com/2019/09/10/why-does-the-new-iphone-11-pro-have-3-cameras/?guccounter=1

Phungglan, J., Writer, J. P., & Schatz, T. (2021, July 20). IPhone 12 Pro camera review. Retrieved from https://backlightblog.com/iphone-12-pro-cameraHeller, S. (2015). *The education of a graphic designer* (3rd ed.). New York : Allworth Press.

Use camera modes on your iPhone, iPad and iPod touch. (2021, February 12). Retrieved from https://support.apple.com/en-au/HT207260

Hamish White

Everybody Say Cheese!

The iPhones camera features has introduced a way to take better photos from a smaller camera.

Recycling your iPhone

Ron Chen & Debra Sweeney

The camera market has always been ruled by big brand names such as Canon, Nikon and Sony but has the new age of photography come? Apple has consistently brought out cameras in the iPhone product since 2007. These cameras have evolved in quality and have transformed how photography is appraised in our society.

The iPhone meant that there was a way to take high-quality photos without the need to carry and camera around. There was a new technology called mutual capacitive multitouch which mean that now zoom options were available. To understand how the cameras in our phones work we must first understand how photos are taken on regular cameras. The cameras in our iPhones contain a similar lens and shutter to a digital camera. This means that these cameras have the same components, including shutter speed, ISO and aperture.

Shutter speed is defined as the length of time the camera shutter remains open affects the exposure. The aperture controls the amount of light the come through the lens while the ISO Determines how sensitive that light is. The iPhone automatically determines the best settings for the image and takes the photo.

ISO ISO 100 Low High Shutter Speed 1/1000 Fast Slow Aperture Big O O \int Small The clever part of the photography process in the iPhone is the conversion from light to JPEG. A JPEG is the compression of image data into a file. These are then saved to our phones in the camera roll. The pixel data is usually affected by the kind of phone you have. Apple has worked to make the pixel capacity large meaning better quality photos.





Now, what's different from a digital camera? Apple has created different features that have not been applied to these kinds of phones before. These features include 3 cameras focusing on different parts of the image as well as a portrait mode and night mode.

First, let's talk about the portrait and night mode. Both settings have been made to create an automatic way to take photos that weren't available on the iPhone before.

The first of these modes is the portrait mode. This mode allows a change in depth of field, focusing on the main character in the image while putting the rest of the photo in a blur. When this mode is selected it adjusts the aperture so that the depth of field is shallower and therefore focusing on the main object in the image.

Portrait Mode





Blurred Portrait Mode



Black Portrait Mode

Night mode is another new feature of the new iPhones. It is a simple feature that allows darker photos to be lightened up without losing the idea of the darkness. This mode works by balancing the light and dark in the photo and automatically adjusting to lighting that looks nice and saves it in that state.

Night Mode



Without Night Mode



With Night Mode

The three-camera lens each assist in doing a different kinds of photos. These three different kinds of photos that can be taken with this are wide, telephoto and ultrawide.

A wide photo is the normal setting we are used to. This type of lens is used to take normal photos that don't need zoom adjustments.

Telephoto works by enhancing the resolution at a further distance. This means instead of the pinch in zoom that only gives you a closer zoom at the pixels this gives you an optical zoom that allows a closer look at the image without ruining the resolution of the photo. Ultra-wide gives a wide-angle view. This view will capture aspects of the photo that would not have been captured otherwise. This lens uses a fisheye lens that is matched with the other cameras. Distorting the edges while still capturing the whole view.

With the growth of social media and sharing, there has never been a more photography-filled world and Apple is the start to that. This has changed the world of photography by adding in different functions, evolving technology in an everevolving visual world.



References:

Clover, J. (2019, September 30). Night Mode on iPhone: Everything You Need to Know. Retrieved from https://www.macrumors.com/ guide/night-mode/

Coldewey, D. (2019, September 10). Why does the new iPhone 11 Pro have 3 cameras? Retrieved from https://techcrunch. com/2019/09/10/why-does-the-new-iphone-11-pro-have-3-cameras/?guccounter=1

Phungglan, J., Writer, J. P., & Schatz, T. (2021, July 20). IPhone 12 Pro camera review. Retrieved from https://backlightblog.com/ iphone-12-pro-cameraHeller, S. (2015). *The education of a graphic designer* (3rd ed.). New York : Allworth Press.

Use camera modes on your iPhone, iPad and iPod touch. (2021, February 12). Retrieved from https://support.apple.com/en-au/ HT207260