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1

Photos on Mobile Devices

Digital photography has evolved rapidly since the first digital cameras were developed. This chapter looks at how the smartphone has now become essential in the digital photography world.

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The Changing Face of Photography

It is only a couple of decades or so ago that digital photography was the new kid on the digital block. The idea of capturing photos onto a memory card, using a collection of digital data rather than on traditional film was revolutionary at the time, but it quickly became popular with photography enthusiasts and the wider consumer market. The instant nature of digital photography was one of its great selling points: as soon as you took a photo you could see it on the camera, without the need to wait hours or days for a camera film to be developed and printed.



Although smartphone and tablet cameras are now very powerful and contain a range of options for photographic techniques and effects, they still do not offer the full range of options that are available on good-quality cameras. However, the gap is narrowing all the time, and the convenience of using a smartphone in particular is enough to make a lot of people favor them over using a separate device.

One of the initial drawbacks about digital photography was the expense of the digital cameras themselves. However, the technology advanced quickly, to the point where, within a few years, owning a digital camera was a realistic option for most people taking photos. As the popularity of digital photography has increased and become more widespread, we rarely think of it as a separate entity: digital photography is usually now considered simply under the banner of “photography”.

Following the introduction of digital photography, the next big game-changer was the use of digital cameras on smartphones and tablets. This has had a significant impact on the way in which people deal with their photographic needs: in a lot of cases, the advantages of using a smartphone for taking photos has led many people to use this instead of a separate camera. The benefits of undertaking photography on a smartphone are numerous:

- **Convenience.** These days, most people keep their smartphones with them at all times. This means that they are also ready to take photos whenever they want.
- **Portability.** Smartphones are generally smaller than digital cameras and easier to carry around in a pocket, so that they are always to hand.
- **Two cameras.** Most smartphones have two separate cameras: one front-facing one and one back-facing one. The front-facing one is ideal for taking selfies (photographic self-portraits) – a craze that began with smartphones.
- **Sharing.** Smartphones are also ideal for sharing photos that have been taken on the smartphone. This can be done directly from a photo sharing/editing app, and most smartphones have their own default apps designed for this.

Default Camera Apps

Everything on a smartphone or tablet is done through the use of apps (short for applications), even taking photos. The default Camera app is used both on Apple iPhones using the iOS operating system and on Android smartphones. Think of the Camera app as the equivalent of turning on a traditional camera: once you tap on the app, the camera interface is activated. This includes the current scene being viewed by the camera, and the camera controls.



The top toolbar of camera apps usually contains the options buttons for items such as flash, self-timer, and filter effects.



The bottom section contains the Shutter button, different shooting modes (including taking videos), and the Swap-camera button for switching between the front-facing and back-facing cameras.



The two main types of smartphones are Apple ones (i.e. the iPhone which runs on the iOS operating system) and Android ones, which can be customized to run on a range of different smartphone models – e.g. Samsung, Sony, Google, or Motorola. The iOS operating system is only used on Apple smartphones.

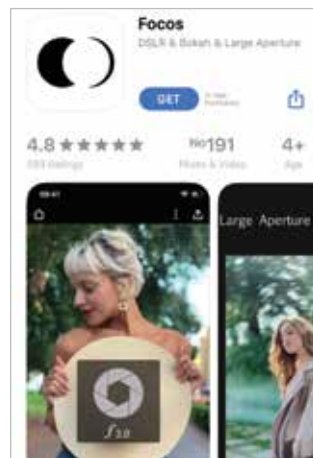


Some camera apps are free and others have to be paid for. Some of the free ones also have in-app purchases, where additional features have to be paid for. Try downloading a few free apps initially to assess their features and also to see how comfortable you are with the interface.

Third-party Camera Apps

Although the default camera apps provided on iOS and Android smartphones are very capable and effective for taking a range of different photos, you are not constrained to only using the default ones: it is possible to download other camera apps that can be used instead (third-party apps). These generally have a greater range of functionality than the default camera apps, and so you will have more control over your photos. They are also useful for adding special effects to photos. To use a different camera app:

- 1 Access the relevant app store for your smartphone – e.g. the App Store for an iOS smartphone, or the Google Play Store for an Android smartphone
- 2 Enter **camera apps** into the Search box
- 3 Tap on one of the results to view its details
- 4 Tap on one of the apps to download it to your phone and use it for taking photos with your smartphone's camera



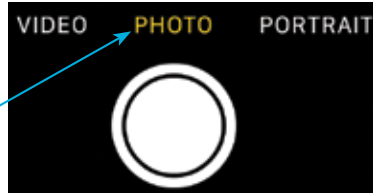
Accessing Camera Controls

Camera controls can differ depending on the model of smartphone and the camera app being used, but in general a lot of the functionality is the same:

1 Tap on this button (Shutter button) to take a photo



2 If the camera has different shooting modes, swipe left and right above the Shutter button to access them



3 Tap on the thumbnail of the most recently taken photo to view it



4 Tap on this button to switch between the front-facing and back-facing cameras



5 Tap on the **Flash** button to view its options. Tap on an item to apply it for the flash



6 Tap on the **Self-timer** button to view its options. Tap on an item to apply it for the self-timer



7 Tap on the **Filters** button to apply a filter effect for the next photo to be taken



The Flash, Self-timer and Filter options are usually located on the top toolbar in the Camera app. The Shutter button is usually located at the bottom-middle of the Camera app.



If a filter effect is selected in Step 7, this will stay in place until another filter effect is selected, or it is canceled – i.e. the filter effect is set to None.



For Apple mobile devices the terminology is slightly different for smartphones (iPhone), and tablets (iPad), in terms of the operating system used. For the iPhone it is iOS and for the iPad it is iPadOS. However, the functionality of the two systems is virtually identical, particularly in terms of working with and managing photos.



If an item in Step 3 has an arrow next to it, tap on it to access more options for the item.





Accessing Camera Settings

For the default camera apps on Apple and Android mobile devices, there is a full range of settings that can be applied to the camera. Accessing these settings can vary between Apple devices (iPhones and iPads) and Android ones: on Apple devices the settings are accessed from the Settings app, and on Android devices they are accessed from the Camera app itself. Regardless of which type of device is used, these settings can be used to apply a range of options for the camera, such as for how video is captured, and displaying a grid over the window to help with composition in photos.

Apple camera settings

To access the camera settings for an iPhone or an iPad:

- 1 Tap on the **Settings** app 
- 2 Tap on the **Camera** option  **Camera**
- 3 Select the camera settings as required



...cont'd

Android camera settings

To access the camera settings for an Android mobile device:

- 1 Open the **Camera** app and tap on the **Settings** button



- 2 Select the camera settings as required



Third-party camera apps usually have settings that can be accessed from a button similar to the one in Step 1.

- 3 Tap on an item to access additional options for it

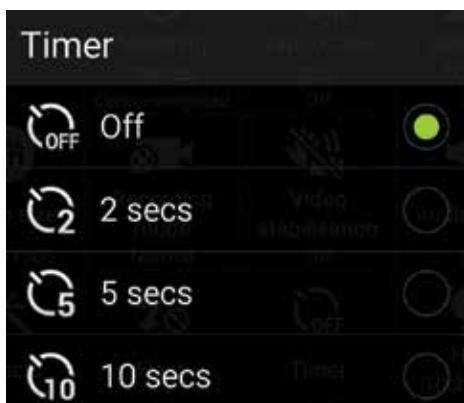




Photo editing can be done effectively on a smartphone, but it is best to use a smartphone with as big a screen as possible, to ensure that you can see the editing effects.

Smartphones and Tablets

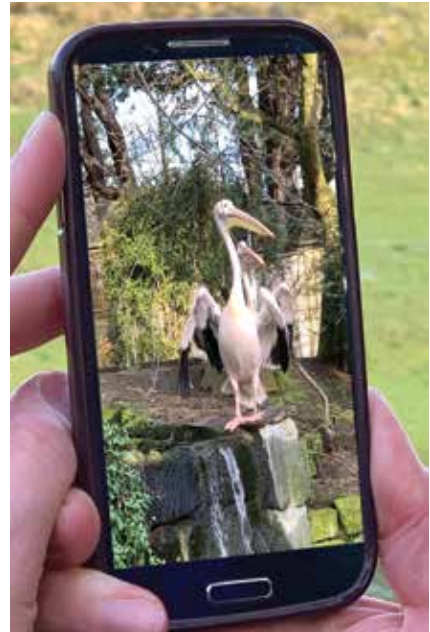
Both smartphones and tablets have cameras that can take good-quality photos. However, there are some points to consider when choosing which device to use for your photographic needs.

Quality of cameras

Smartphone manufacturers have recognized that a good-quality camera is one of the features that helps their models stand out from the crowd. Also, as more people migrate to using their smartphones as their main photographic device, the need to make the cameras as effective as possible has increased. Therefore the quality and range of features of smartphone cameras has increased at a quicker rate than those on tablets. This is not to say that cameras on tablets cannot be used to capture some eye-catching photos, but smartphone cameras are a better option as a one-stop shop for most of your photographic needs.

Size

Due to their respective sizes, smartphones are a significantly better option in terms of photography, particularly if you are going to be anywhere other than your own home. Smartphones fit easily into a pocket or a bag, and they can also be held one-handed when taking photos. Tablets can certainly be used for photographic tasks too, but they are bulkier and less maneuverable, and it can become frustrating using them regularly to take photos.



Editing capabilities

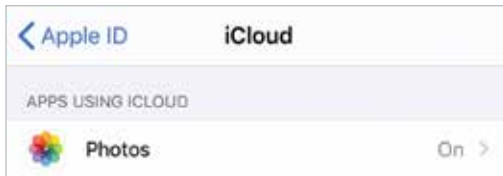
In terms of size, viewing and editing photos is where tablets come into their own. The larger screens mean that they are an excellent option for viewing your photos clearly, and also showing them to family and friends, either individually or as an artistic slideshow, with transitions and music.

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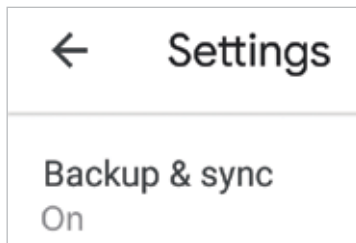
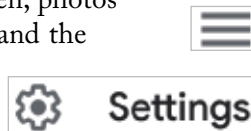
Best of both worlds

Apple smartphones and tablets and Android devices both have cloud services that can be used to ensure that you get the best of both worlds when taking, viewing, and editing photos: the photos can be captured on the smartphone and then backed up to the cloud service. Apple devices use the iCloud service for backing up a range of items including photos, and the Google backup service can be used with Android smartphones and tablets. For both of these services you need to sign in before you can start using them. To do this:

- For iCloud, create an Apple ID and tap on the **iCloud** button within the Settings app. If you access the iCloud button without having created an Apple ID, you will be prompted to do so at this point. See pages 16-17 for more details about using iCloud for photos. Once iCloud has been set up, tap on the **Photos** button to turn it **On** so that photos can be backed up to iCloud.



- For Android devices, you will sign in to a Google Account when you first start using the device. Then, photos can be backed up using the Photos app and the Google backup service. To do this, open the Photos app, tap on the menu button at the top of the window, and tap on the **Settings** option. Tap on the **Backup & sync** button to turn **On** the backup service for storing photos automatically.



An Apple ID can be created during the setup process when you start using an iPhone or an iPad for the first time. It can also be created when you start using one of the linked services for the first time – e.g. the App Store for downloading apps. An Apple ID can be created with an email address and a password.



Both iCloud and Google Backup & sync offer free storage up to a certain limit: 5GB (gigabytes) for iCloud, and 15GB for Google Backup & sync.



Buttons such as those in Step 5 in the Settings app can be turned **On** or **Off** by tapping on them. If the button is green the item is **On**.




By default, you get 5GB of free storage with an iCloud account. This can be used for photos and other items stored in iCloud. More storage can be bought, if required.

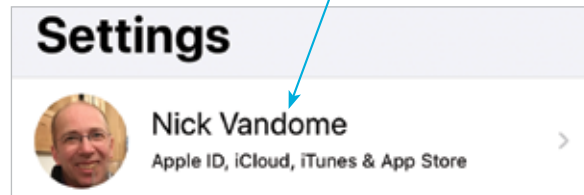
Photos with Apple

Once photos have been captured on a smartphone or tablet, they can then be edited on the same device: for Apple devices, this is done with the default photo-editing app, Photos. This is the same app on the iPhone and the iPad.

Photos app and iCloud

When using the Photos app it is possible to link it to the iCloud service. This means that photos captured and edited on one device can be accessed on another device. This is done using the iCloud option in the Settings app and also the Photos option. To set up iCloud for using photos:

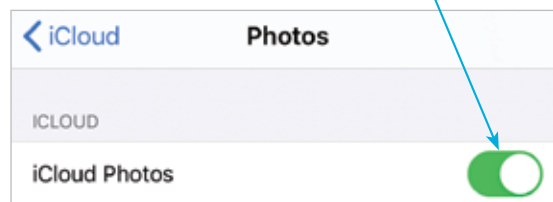
- 1 Tap on the **Settings** app 
- 2 Tap here at the top of the **Settings** window



- 3 Tap on the **iCloud** button 
- 4 Tap on the **Photos** button





- 5 Tap on the **iCloud Photos** button to turn it **On** and enable sharing photos within iCloud



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To access settings for the Photos app:

- 1 Tap on the **Settings** app 
- 2 Tap on the **Photos** button 
- 3 The settings for the Photos app are displayed
- 4 iCloud Photos can be turned **On** in the same way as in Step 5 on the previous page



- 5 Tap the **Shared Albums** button **On** to enable other people to access albums that you have created (you have to also invite them to view the shared album)



Tap the **Upload to My Photo Stream** button **On** in Step 4, to enable photos uploaded on one device to be viewed on another device, providing that they both use the same Apple ID.



Select the **Optimize iPhone Storage** option in Step 4 to compress the photo files to ensure that they use as little storage space as possible on your iPhone (full-size versions remain in iCloud). Select the **Download and Keep Originals** option to save photos on your iPhone at full size.

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Using the Photos app

The Photos app on the iPhone and iPad can be used to store, edit, and share photos. This is regardless of whether it is linked to iCloud or not (if it is linked to iCloud, photos from other linked devices can also be available in the Photos app). To use the Photos app:

1

Tap on the **Photos** app



2

Tap on the **Photos** button on the bottom toolbar to view all of the photos on your iPhone or iPad



Tap on a thumbnail image in the main Photos window to view it at full size. Tap on this button to go back to the main window in Step 2.



For more details about editing photos with the Apple Photos app, see pages 72-73.



3

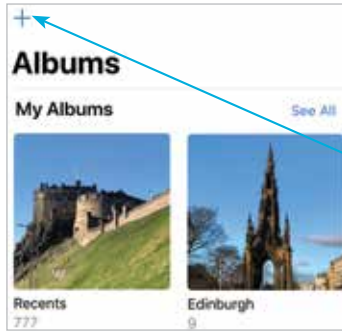
Tap on these buttons to view photos according to **Years**, **Months**, **Days**, or **All Photos**



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4

Tap on the **Albums** button on the bottom toolbar to view albums that have been created to store similar photos



Tap on the + button in the Albums section to create a new album.

5

Tap on the **For You** button on the bottom toolbar to view collections of photos that have been collated automatically by the Photos app, such as featured photos and Memories



6

Tap on one of the **Memories** to view it and display it as a slideshow with transitions and music



Tap on this button once a Memory has been accessed, to play it as a slideshow.





The Android operating system is owned by Google, so their range of apps work effectively on Android devices.

Photos with Android

Since smartphones and tablets using Android can be customized to a certain extent in terms of the apps being used, different photo apps can be available on different models of devices. However, for consistency, the Google Photos app can be used on any device that is using Android. The Google Photos app can be used to store, manage, edit, and share photos that have been captured on an Android smartphone's camera.

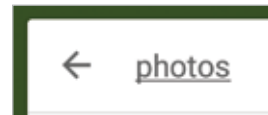
Downloading the Google Photos app

The Google Photos app will be pre-installed on some Android smartphones, but not all of them. If it is not, it can be downloaded, for free, from the Google Play Store. To do this:

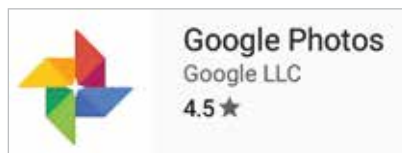
- 1 Tap on the **Play Store** app



- 2 Enter **photos** into the Google Play Search box



- 3 Tap on the **Google Photos** app to download it




- 4 Tap on the **Google Photos** app (named just **Photos** once it has been downloaded) to open it

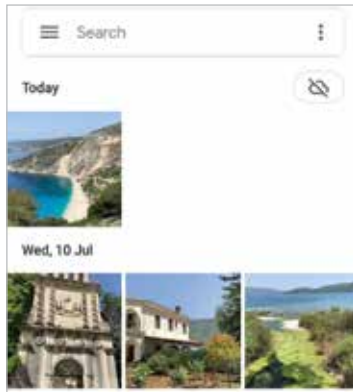


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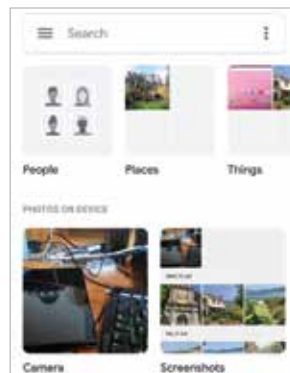
Using the Google Photos app

Once the Google Photos app has been downloaded, if required it can be used to work with photos that have been taken with the smartphone's camera:

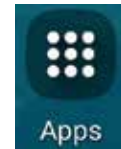
- 1 Tap on the **Photos** app to open it 
- 2 Tap on the **Photos** button on the bottom toolbar to view photos that have been taken, according to the dates on which they were taken. Tap on a photo to view it at full size



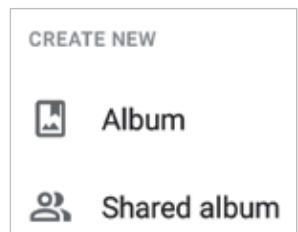
- 3 Tap on the **Albums** button on the bottom toolbar to view and create albums for storing photos of similar type



If the Photos app is not immediately visible on the Home screen of the Android device, it might be found in the Google folder, or from the **Apps** button.



In the Albums section, tap on the Menu button to access options for creating a new Album or a new album for sharing with other people.

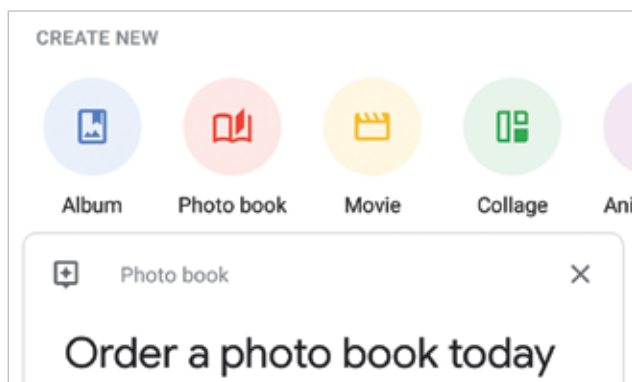


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Tap on an item in Step 4 to follow a step-by-step process for creating the item, including selecting photos and any design features for the item.

- 4 Tap on the **For you** button on the bottom toolbar to access options for using your photos creatively, such as in photo books and collages



- 5 Tap on the **Sharing** button on the bottom toolbar to invite other people, via email, to have access to your photos



For more details about editing photos with the Google Photos app, see pages 74-77.

- 6 Select the person with whom you want to share your photos. They will be sent an email invitation, which they have to accept before they can view your photos

