

# WWDC REVIEW - IOS 12

## Which devices support iOS 12?

If your device runs iOS 11, it will run iOS 12. Apple even promises better speed and performance on older devices. In other words, Apple says apps should launch faster on an iPhone 6 with iOS 12 than on an iPhone 6 with iOS 11.

## Improvements to the Photos app

Apple's Photos app gets a refresh in iOS 12. Search in Photos will be improved, letting you use multiple search terms and search your photo library quicker using Siri.

The Photos app has a new For You tab, which is a feed that shows featured photos, like images you took on the same day in previous years. It suggests loops and bounce effects for Live Photo's, or portrait effects to add to Portrait Mode photos. It also highlights shared iCloud album activity. All these features are in the Google Photos app already, so they're welcome additions to iOS 12, but nothing that has us shocked.

Photos already recognized other people in your images, and in iOS 12, it will suggest you share those photos with those people. Images you share arrive in full resolution. When your friend gets them, her phone will suggest sharing photos taken at the same event right back to you, which will help you gather more photos from the same party without having to set up a shared album, or email or text images back and forth. The sharing is private with end-to-end encryption, and all the machine learning to determine who's in your photos is done on your device, not in the cloud.

## Siri improvements

Siri can suggest tasks based on your normal patterns, like reordering the same Starbucks coffee you get every morning.

When Apple bought Workflow in 2017, they were hoping iOS would eventually get the kind of robust automations it enabled. And now it's time: iOS 12 features big improvements for Siri that can speed up tasks in a single app, as well as let you build routines that use multiple apps, launched with a single Siri command. Siri's

third-party app support has been limited so far, so this should be huge for iOS users.

One Siri Shortcut can execute actions from a number of apps and iOS services. Siri Suggestions are also improved in iOS 12 to anticipate your next actions based on your history. The suggestions can appear on your lock screen and notifications screen, and you can tap one to take care of that action without having to launch an app. It can suggest you call relatives on their birthdays. If you're late to a meeting, it can prewrite a text to the organizer to let them know, or call into the meeting if a call-in number was provided in the invite. If you order a coffee with the same app every morning, a Siri Suggestion will pop up that you can tap to jump right there.

The Shortcuts app will also let you create your own multi-app workflows that you can run with a custom Siri command.

The new Shortcuts app also lets you combine actions from multiple apps into one routine, which you then trigger with a Siri command. For example, if you say, "I'm going surfing," the routine can check the surf report with the Surfline app, read you the current weather, grab an ETA for your drive to the beach, and then make a note in Reminders to tell you to put on sunscreen when you get there.

The Shortcuts app has a gallery full of premade shortcuts, as well as a library you can search. Routines can combine services like texting, mapping, HomeKit, music, you name it. You can search for items to add, or the app can suggest them to you based on machine learning. In the on-stage demo of setting up a "heading home" routine for an evening commute, the app suggested launching the KQED app to play some NPR, because that's what the user usually did at that time of day.

Apple has added password search. In iOS 12, Siri will help you search your phone for passwords so you won't need to constantly write them down.

Among the new things Siri is learning for iOS 12 is an extensive knowledge of the things we eat. Among the questions you'll be able to ask are "How much caffeine in coffee?" or "How healthy is fish?" with Siri retrieving answers from the USDA database. You'll also be able to ask about calorie content, vitamins, and nutritional information.

## **Improvements to News, Stocks, Voice Memos, and Apple Books**

News, Stocks, Voice Memos, and Apple Books all get redesigns in iOS 12.

A few Apple apps will be redesigned in iOS 12, some launching on the iPad for the first time.

In the News app, the Browse tab will make it easier to discover new channels and topics to follow. The For You tab makes it easier to jump to your favorite sources, especially on the iPad, which gets a handy new sidebar.

The Stocks app has a new design with spark lines next to each of your picks, showing their performance throughout the day. Stocks also has a news module along the bottom, with curated business stories chosen by the Apple News team. When you expand the news module, your stocks run horizontally along the top of the screen like a ticker. You can also tap any stock to see an interactive chart, new after-hours pricing, and relevant headlines curated by the editors. Full articles open without leaving the Stocks app. iOS 12 also brings Stocks to the iPad for the first time.

Voice Memos is coming to the iPad, with iCloud support to sync your voice recordings between devices.

iBooks has been rechristened Apple Books, with a new design to match the App Store and Apple Music. A Reading Now section shows a preview of your book right at the page you left off, tempting you to jump right back in. The store tabs for ebooks and audiobooks are redesigned too.

## **CarPlay improvements**

iOS 12 brings new features to CarPlay, Apple's platform for interacting with your iPhone via your car stereo. For the first time, CarPlay will support third-party navigation apps like Waze and Google Maps.

That means you can get turn-by-turn directions from your preferred mapping app, but there was no specific mention of letting users set a third-party mapping app as the default when you ask for directions.

## **Digital Health features**

Apple's improving the Do Not Disturb feature in iOS 12. If you go to check the time at night, for example, DND Bedtime can just show you the time on a dark lock screen, saving the notifications for later. In the morning, it even eases you in, with a lock screen that says good morning and shows the time and temperature, until you tap it again to indicate you're ready for the full deluge of notifications.

Those notifications will be more organized, though. iOS 12 supports grouping of notifications by type, topic, and thread. You can tap a group to expand it, or even swipe a group to dismiss the whole thing at once.

It's much easier to tweak how an app notifies you in iOS 12, too. Until now, you've had to dig into Notifications and then find that app in a huge list of all your apps. It was frankly just easier to delete an app that sent annoying notifications, than it was to go in and turn them off or edit their behavior.

In iOS 12, you can force-press a notification to tweak how that app's notifications work. Siri will even proactively suggest you turn off notifications for apps you're no longer using.

iOS 12's new Screen Time app will send users weekly reports about how they're using their devices, including how many times you looked at your phone throughout the day, which app pulled you in each time, and even which apps send you the most notifications. You'll be able to see how often you use your apps, and at which times of day. If any of this data concerns you, you can set Time Limits for yourself.

Those limits apply across iPhones and iPads logged in with your iCloud account. Kids will get their own activity report, and a separate one is sent to their parents' device. This uses Family Sharing, so parents can manage the reports, Time Limits, and new parental content controls remotely from their own devices.

These are welcome changes, but they could be difficult to implement if, say, your whole family shares an iPad, because iOS 12 still doesn't support individual user accounts, unlike macOS. If I have two kids who each love the same app on the same iPad, there's no way to give them each a time limit. Apple may not be in a hurry to fix this, either, because the "natural" solution is to buy each kid their own device.

## **New Animoji, Memoji, and filters in Messages**

The Messages app gets new Animoji characters, including a koala, a tiger, a ghost, and a T-Rex. Memoji are like personalized animoji. They look more three-dimensional than the custom Bitmoji you make in Snapchat, but much better-looking than the Mii characters you make on a Nintendo console.

Users can customize their Memoji with hundreds of options for skin color, hairstyle, facial features, and accessories like hats and glasses. You can save multiple Memoji and use them in Messages to send reactions to your friends.

The Messages app gets new filters for sending photo and video responses, and you can add stickers, too.

One of the shortcomings of Animoji in iOS 11 is the extremely short 10-second limit on recording inside the Messages app. In iOS 12, Apple is tripling the recording time to 30 seconds

## **Group FaceTime chats**

In iOS 12, you can have a group FaceTime chat with up to 32 total participants simultaneously, over audio or video. FaceTime is even integrated into Messages, so if a group chat is getting unwieldy, you can launch a group FaceTime chat right from Messages, or jump into a group call already in progress.

A side-scrolling roster along the bottom shows everyone in the chat if they don't all fit on the screen at once. Floating tiles for each chat participant get larger when that person speaks. You can also double-tap a tile to see that person front and center.

From the FaceTime camera, you can get to your Animoji, sticker packs, and effects. Ever wanted to participate in a meeting of koalas? Now you can. Apple Watch users can answer FaceTime audio calls directly from their wrists, too.

## **Free Trials to App Store**

Apple has finally fixed one of the biggest complaints about its Mac and iOS App Stores: free trials. Developers can now offer free time-limited trials of their apps, with a one-time in-app purchase to unlock the full version. This little amendment to the App Store guidelines may prove to be huge, paving the way for developers to make much better, pro-level apps for iOS.

## **Live Listen**

Users will soon have the option to turn Live Listen on enables users to listen to the audio picked up by the iPhone's microphone and listen through the connected audio output.

## **Critical alerts toggle**

iPhone and iPad users will have a new type of opt-in alert for critical notifications in iOS 12, so they can ensure that they'll receive reports from important apps like healthcare providers. These critical alerts will take top priority on the lock screen and notification Cover Sheet, and they'll even show up if Do Not Disturb is turned on.

## **Improved Photos support for RAW images**

While Apple has allowed RAW photos import via the Lightning to SD card reader and Lightning to USB cable dongles since iOS 10, iOS 12 will streamline the process even more. Apple will now be letting users import and manage RAW photos on their iPhone and iPad and edit them on the iPad Pro, so you won't need to use a third-party app anymore.

## **Portrait Segmentation API**

Speaking of portraits, Apple will also be opening up its greatest camera trick to developers for use in their apps. A new Portrait Segmentation API in iOS 12 will not only let developers incorporate portrait features into their apps, it will allow for the separation of layers in photos, such as separating the background from the foreground. That means you might be able to adjust the blur after taking a picture in iOS 12.

## **Better Portrait Lighting effects**

If you have an iPhone 8 or X, you already know how great Portrait Lighting can be for your photos. But in iOS 12 it's going to be even better. When you apply one of the lighting modes, the camera will generate a mask when it detects a person and "intelligently and elegantly" separate the person from the scene. That means your portraits should be even more stunning.

## **Autofilling of SMS security codes**

Two-factor authentication may make our data safer, but it also means we tediously need to copy codes from Messages paste them into boxes every time we need to sign in on a new device. That will change in iOS 12. When you receive a one-time SMS passcode they will appear automatically as AutoFill suggestions, easily saving hundreds of seconds every year.

## **In-depth battery information**

Apple already upgraded the battery information tab in iOS 11.3, but in iOS 12 it's getting even more useful. Inside the battery tab in Settings, you'll find an expanded usage chart that will show your usage for the last 24 hours or 10 days. Then you can tap one of the bars to see your app use for that precise period of time.

## **iPhone X-style gestures for iPad**

The iPad didn't get a whole lot of stage time during the keynote, but Apple hasn't forgotten about it. Along with the usual gestures, iPads running iOS 12 will be able to return to the Home screen by swiping up anywhere on the Dock. And if you want to find the Control Center, you'll need to swipe down from the top-right corner of the screen.

## **English Thesaurus**

While iOS has long had a dictionary to get spelling right, iOS 12 will help English writers mix up their writing with synonyms as well. A new thesaurus option in iOS 12 will help you find similar words with a tap. We think that's a really, really, really good thing.

## **AirDrop Passwords**

You will be able to AirDrop passwords between different iOS 12 and macOS 10.14 Mojave devices. On the device to which you AirDropped the password to, the password will go straight into the same Passwords section in Settings. If an entry for that site exists, you'll be given the option to update it or cancel the process altogether.