



MESSAGES

now

Dabin, Omar, Ore, Pat, Steve

All About Notifications 😊 🎵

What are Notifications?

Preparing user for Notifications

Advanced Features

Demo

Wrap up

Q&A

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Q&A

Omar Qureshi, Chronic Procrastinator

What are Notifications?

no·ti·fi·ca·tion

/,nōdəfə'kāSH(ə)n/ ⓘ

noun

the action of notifying someone or something.

"we have yet to receive formal notification of the announcement"

synonyms: informing, [telling](#), alerting, filling in [More](#)



Translations, word origin and more definitions

Real life Notifications

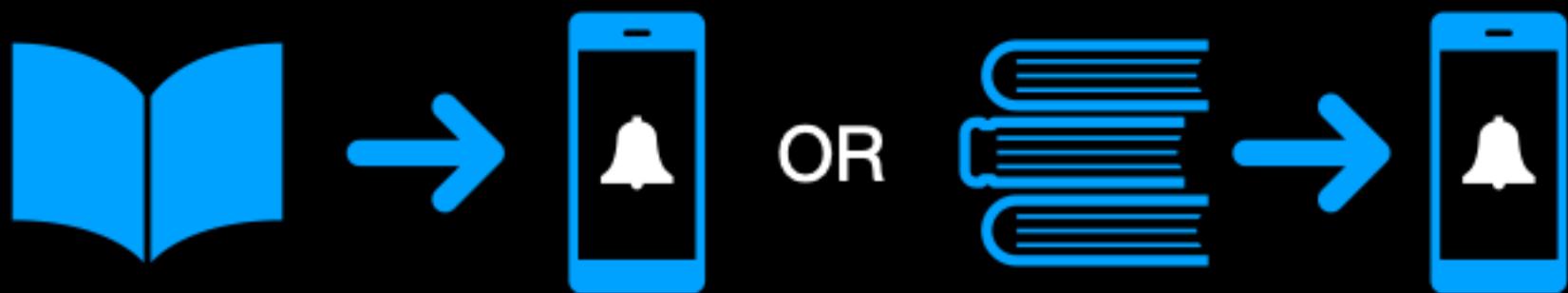


Notifications in

Notifications in Apps

Notifications update the user on background *state changes*

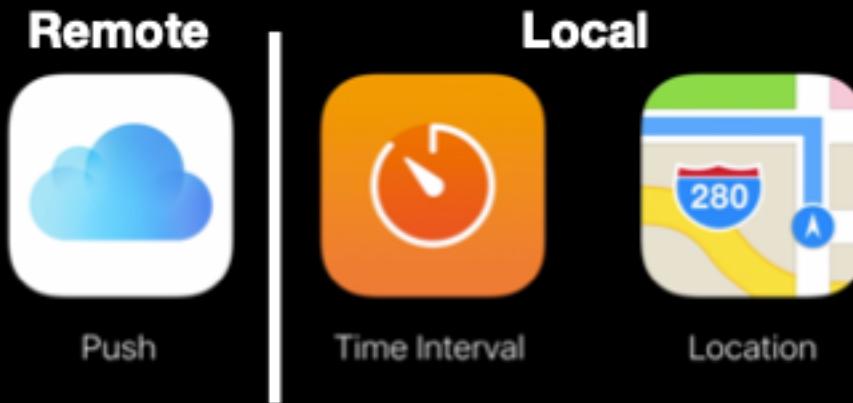
Good developers then need to be mindful of *important* state changes in app



The details -

Notification types

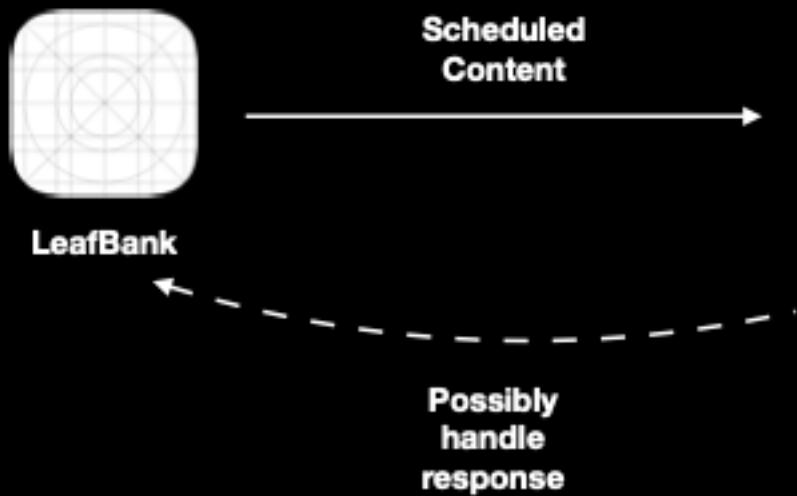
Based on two types of triggers



The details -

Local Notifications

Background app is remotely state changed via time or location
In our case, we will remind users to log their dosages every day

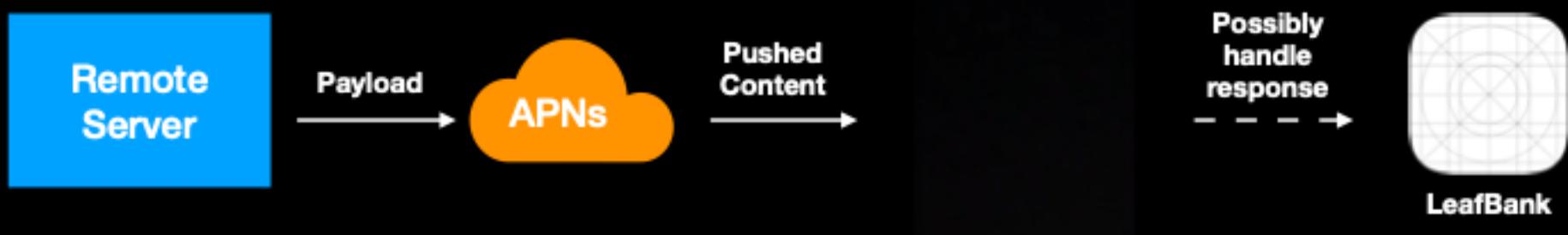


The details -
Remote Notifications

Remote Notifications

Background app is remotely state changed via a server

In our case, surveys are pushed to app remotely and users should be notified of them



The details -
III Breakdown

UI Breakdown

Notice content body is fairly limited so ensure you pick your words carefully to deliver the highest value to user

"Brevity is the soul of wit."

-Shakespeare

App badge/name provided by system
Title
Subtitle
Body

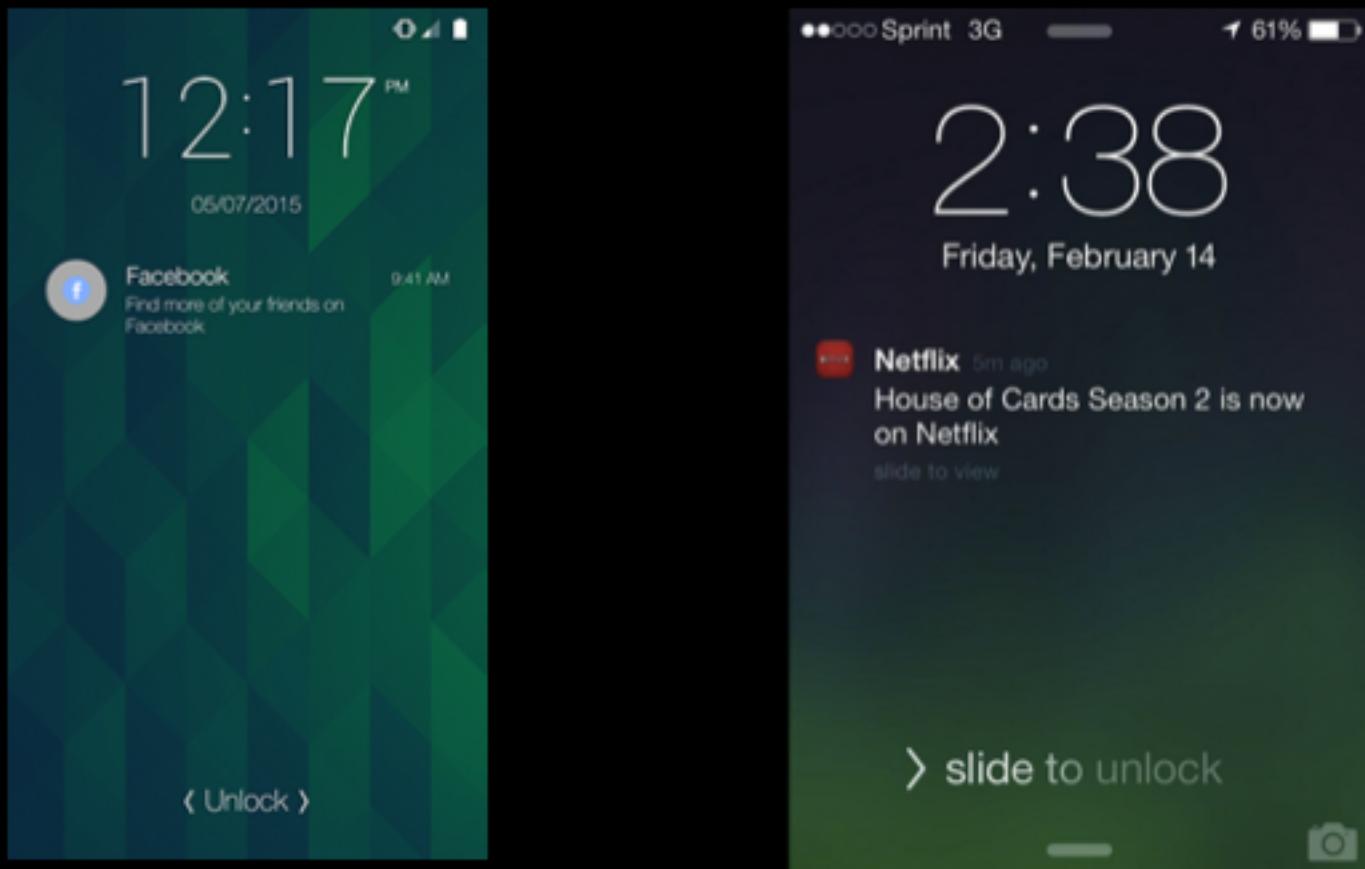


Some Rules to Notifications

- Use complete sentences, sentence case, proper punctuation
- Avoid telling the user what to do with a notification
- Avoid sending multiple notifications of the same thing
- Keep the message content short with high value
- Deliver the notification at the appropriate localized times
- Consider providing detail view and contextual actions, this increases value — more on this in Advanced Features

Question

Which
notification is
better?



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Wrap up Q&A

Dabin Lamming, Tootsie Roll Enthusiast

**One Shot, One Opportunity
Capture It or Let It Slip**

A New App Would Like to Send You Notifications

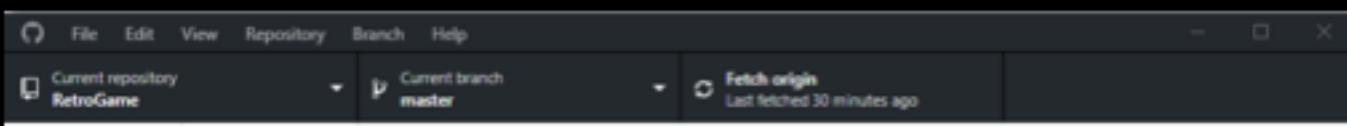
A New App would like to send you notifications such as friend requests, event updates, and mentions.

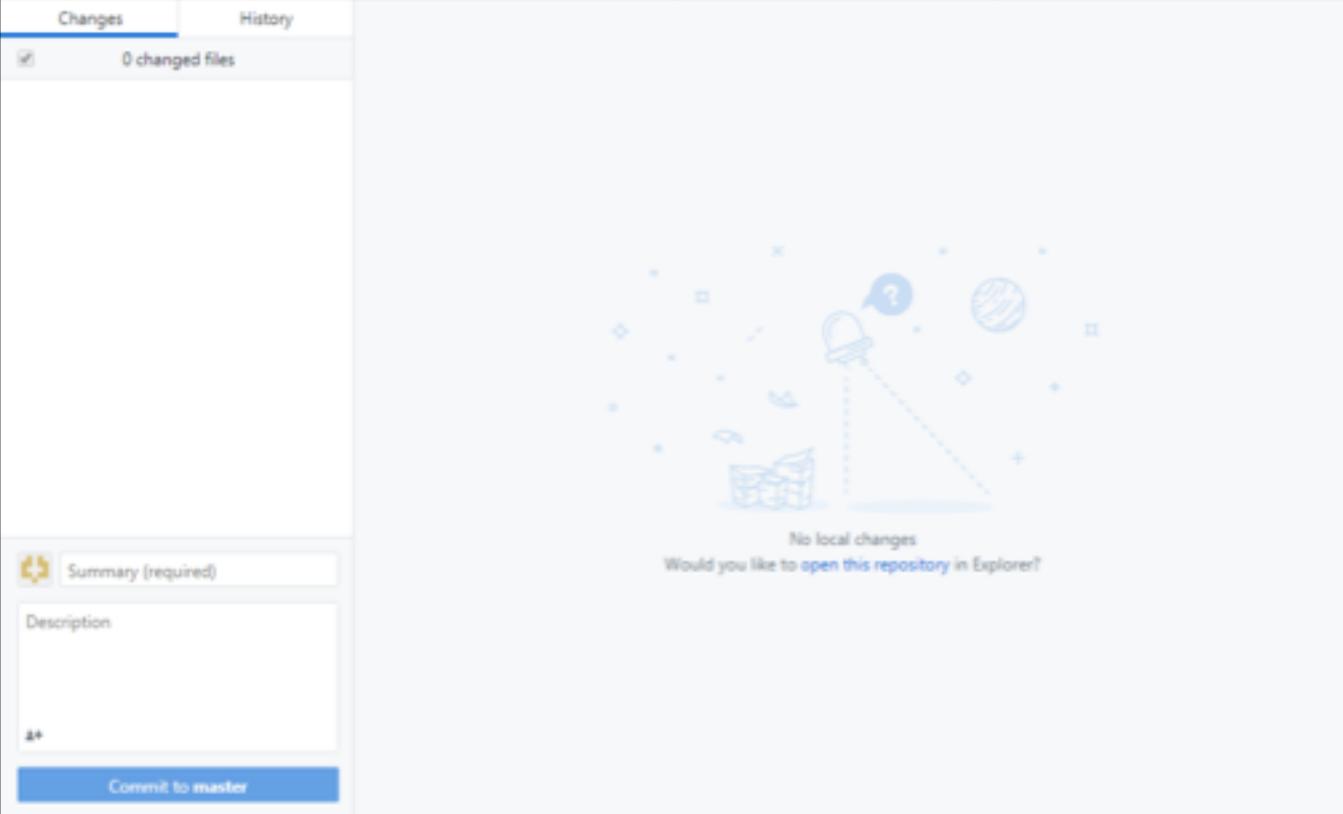
These may play a sound, show up on the Lock screen, or badge the app. Notifications and how they appear can be managed in Settings.

[Allow](#)

[Don't Allow](#)

What are people willing to commit to?





Why?

Repository platforms don't interrupt then pressure you to commit, they let you

decide.

We don't want our users to feel pressure,
we want them to want to commit

We can apply this to designing our
notifications.

Asking for Permission The Right Way

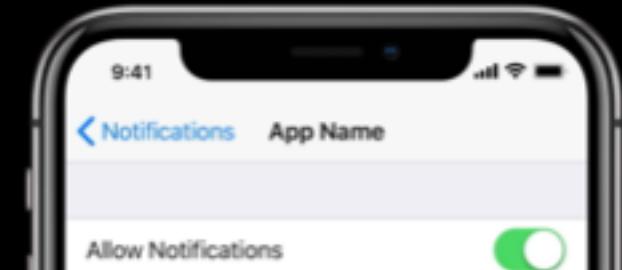
Do not prompt on first launch

Explain why notifications are valuable

Present at a relevant moment

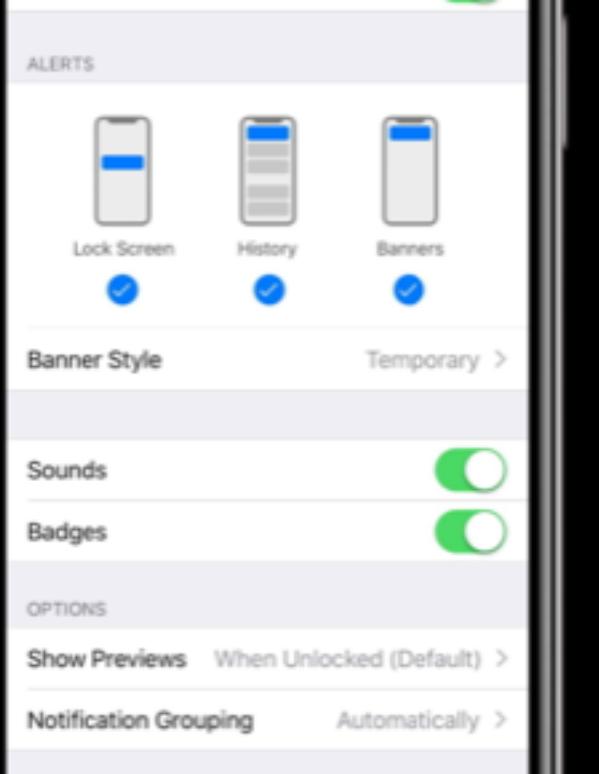
Notification Settings

iOS provides a default



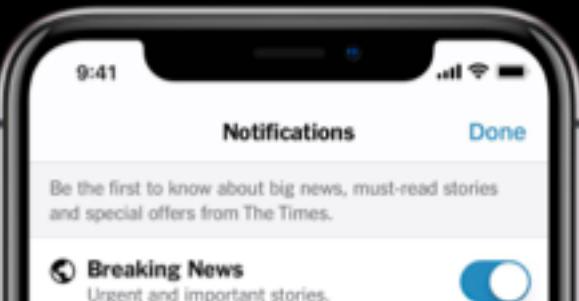
notification settings view for every app that sends notifications.

But it is fairly limited.



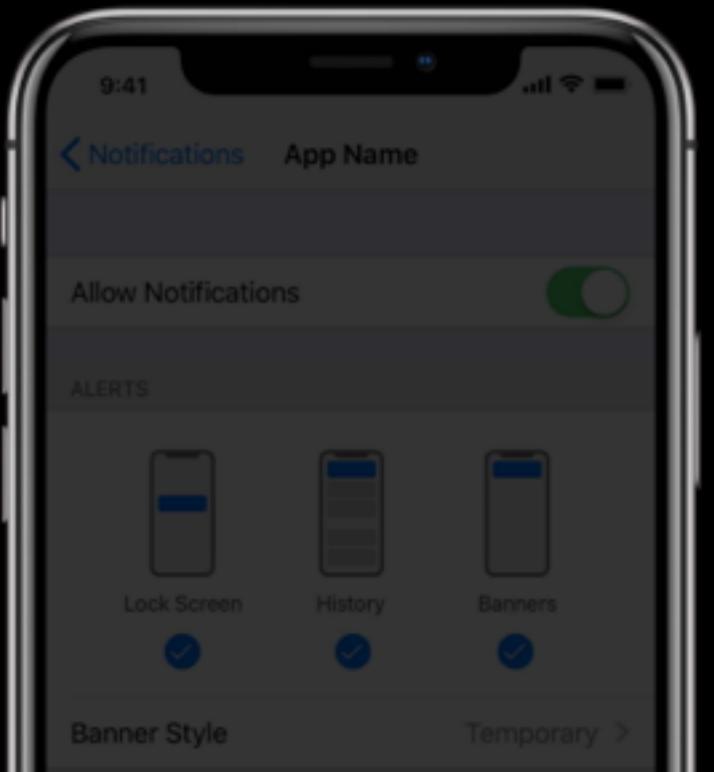
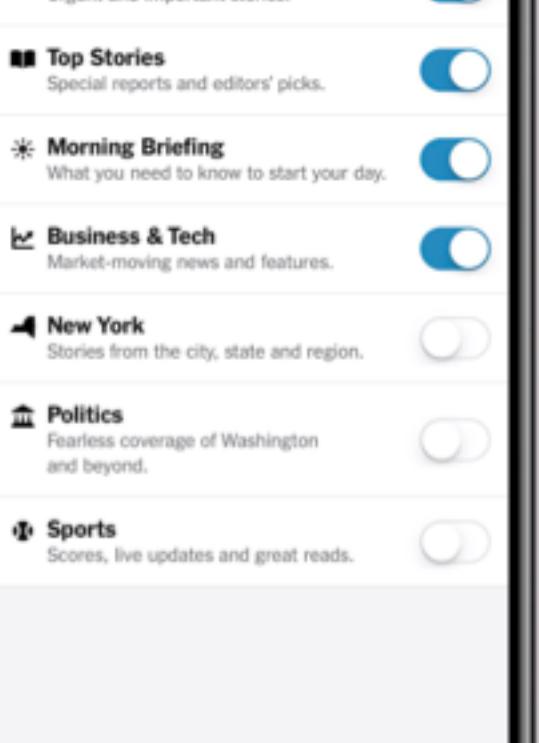
Custom Notification Settings

It's useful to have a place in your



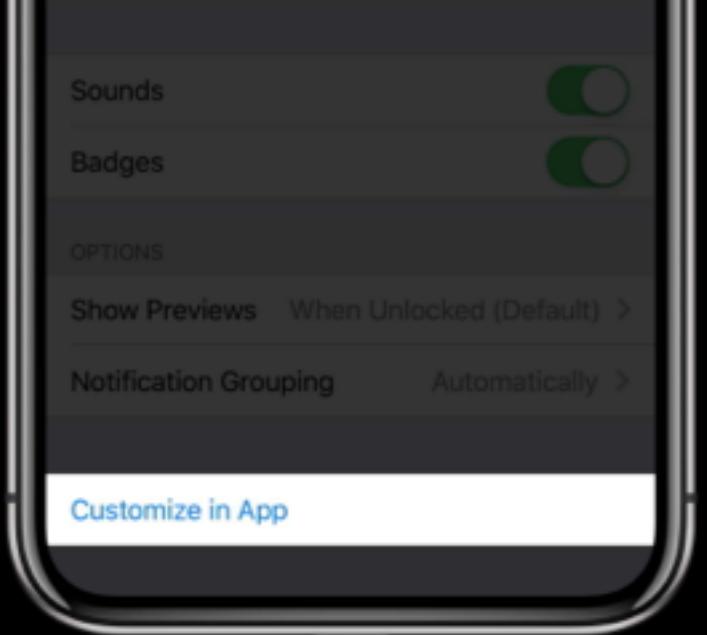
app for users to learn about and control their notifications

These options can be tailored to suit your notifications



Access Custom Settings

In iOS 12, from the built in

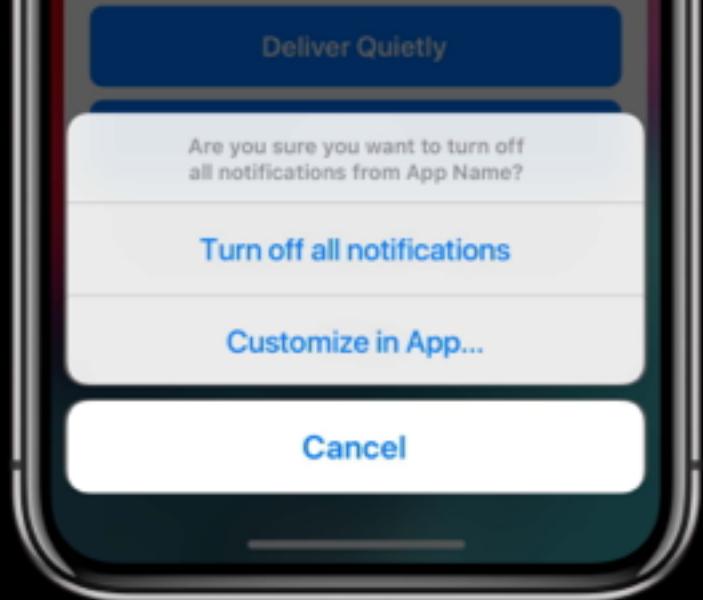


notification settings, there is
a link to your custom
notification settings.. if you
implement it.



Turn Off Notifications

OR



Customize in App..

How To Make This Work

```
let center = UNUserNotificationCenter.current()
// Request permission to display alerts and play sounds.
center.requestAuthorization(options: [.alert, .sound])
{ (granted, error) in
    // Enable or disable features based on authorization.
```

```
// Enable or disable features based on authorization.
```

```
}
```

options: [..., .providesAppNotificationSettings]

Your app delegate must conform to the protocol

"UNUserNotificationCenterDelegate"

class AppDelegate: ..., UNUserNotificationCenterDelegate

```
func userNotificationCenter(_ center: UNUserNotificationCenter, openSettingsFor notification: UNNotification?) {
    let navController = self.window?.rootViewController as! UINavigationController
    let notificationSettingsVC = NotificationSettingsViewController()
    navController.pushViewController(notificationSettingsVC, animated: true)
}
```

iOS 12 features a new and improved way for developers to send their users notifications

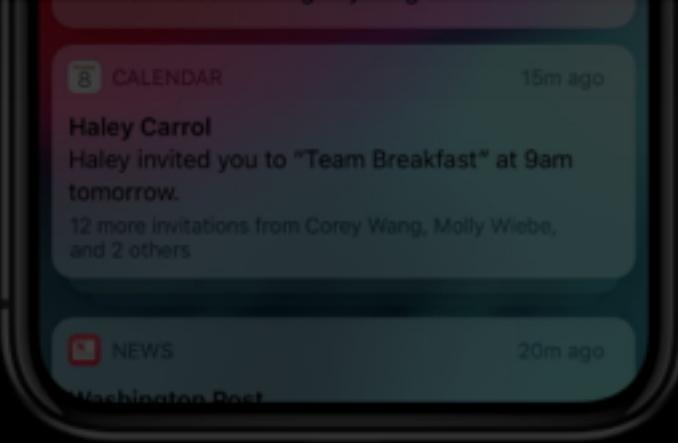
Using the Notification Center

Don't need user consent, but
no alert upon receipt and not
presented on the lock screen



Think of it as a notifications test drive





To lock screen or not to lock screen

Determine the category or categories of notifications your app will be sending.

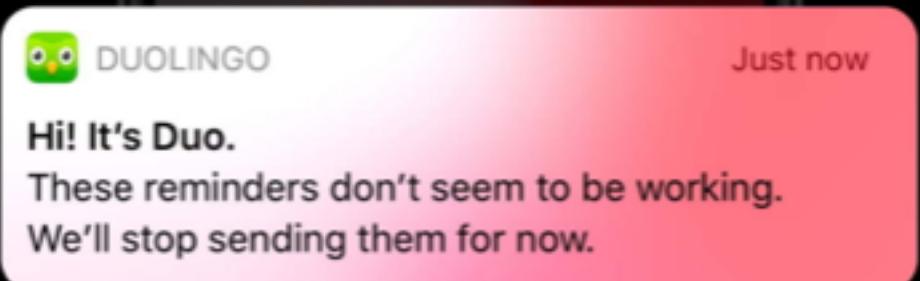
Urgent Response (FaceTime Call)

Critical Information (Uber)

Passive Consumption (News)

Promotional (Games)

Sometimes, it's better to stop





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Ore, iPhone impersonator

Activity

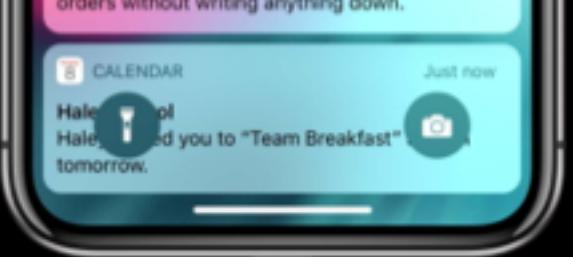


**What are some of the problems
on the left?**

What are some solutions?

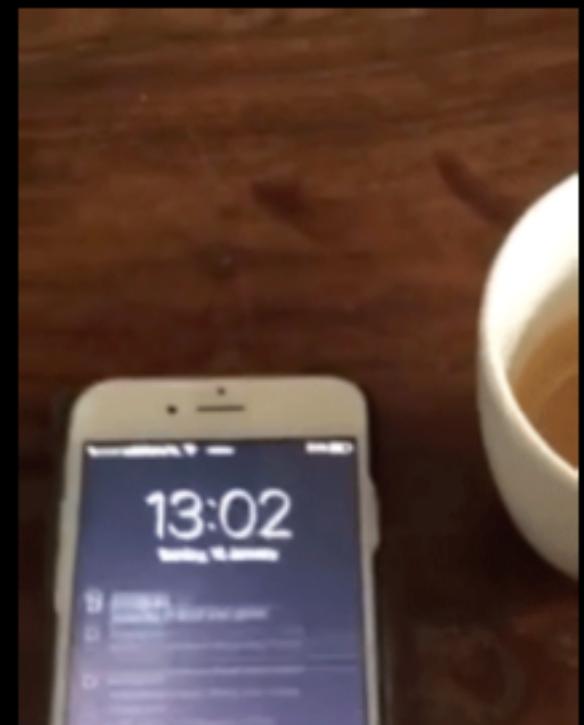


**In groups come up with a fix
on your paper prototypes**



Were your solutions similar
to Apples?

The Problem: Worst Case Scenario

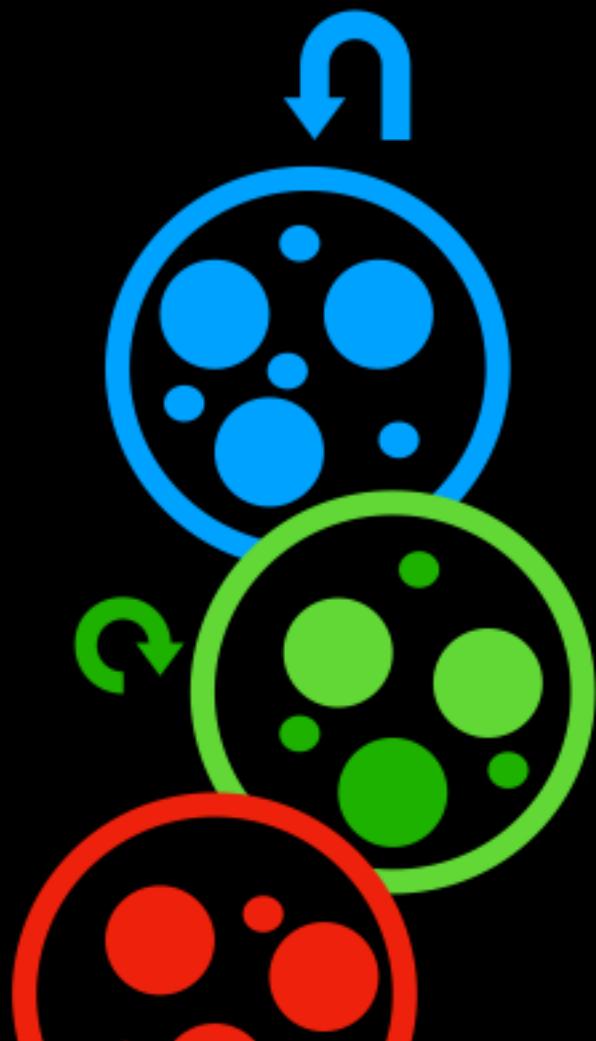




Notification Grouping

Notifications will be grouped according to app ownership by default

Can be customized (messages are grouped by conversation rather than by belonging to the messaging app)

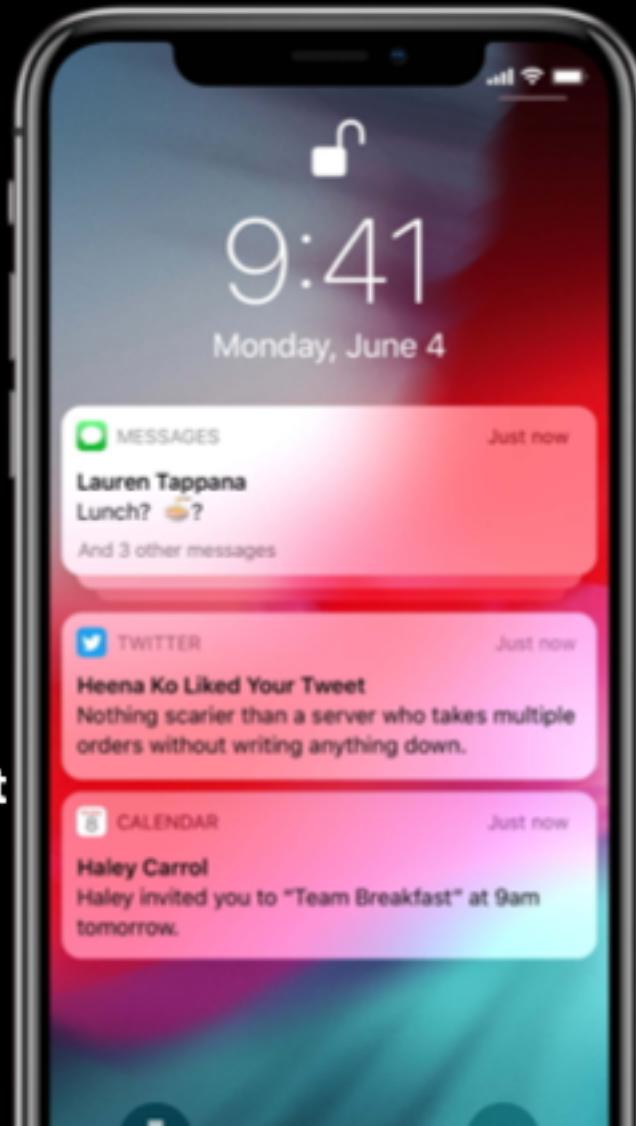




Old



New



High Visibility

Organization

You can delete several notifications at once

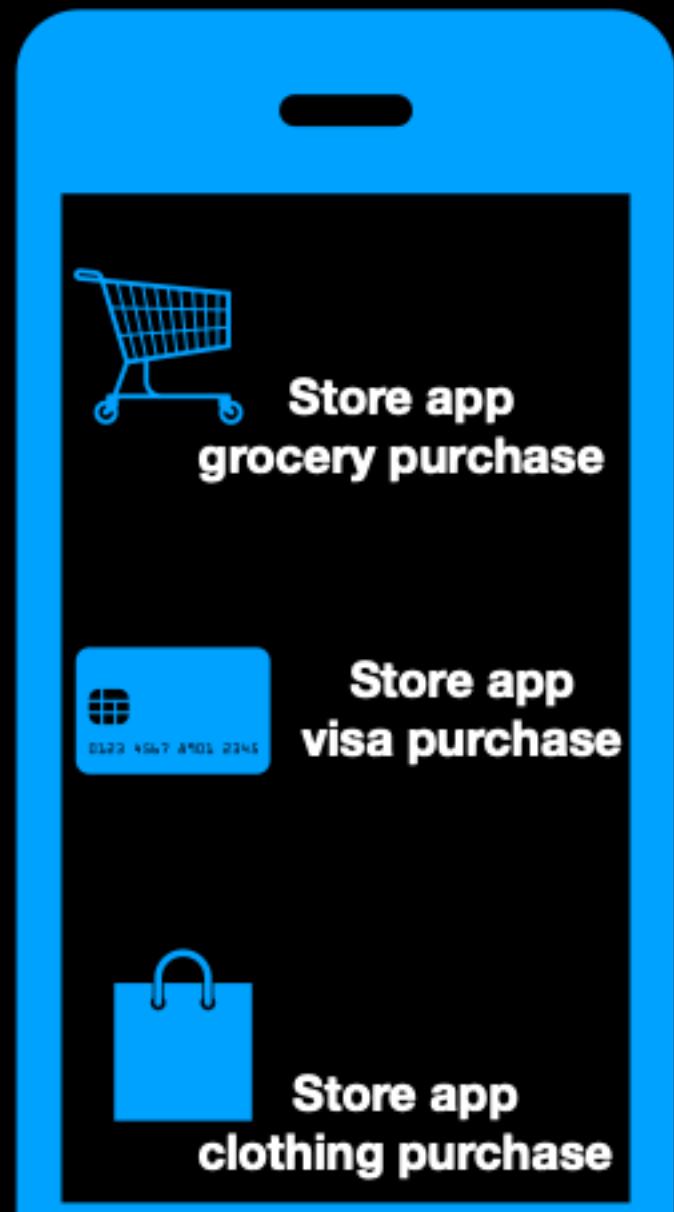
Automatic grouping ensures that the user has less to worry about

Notification Thread Identifiers

Notifications with the same thread identifiers are grouped together

Identifier is a string of your choosing

"Threading is about consolidating and organizing your content"



Thread identifier "New Purchase"

```
// Creating groups with thread identifiers

let content = UNMutableNotificationContent()
content.title = "Notifications Team"
content.body = "WWDC After Party!"
content.threadIdentifier = "notifications-team-chat"

// Yes, this is a code slide in a design presentation.
// 😊

{
    "aps" : {
        "alert" : {
            "title" : "New Photo",
            "body" : "Jane Doe posted a new photo",
            "thread-id" : "thread-identifier",
        },
    },
}
```

for a local notification
you can set the thread
identifier on the notification
content object

if there is no thread
identifier notifications
get grouped with the
app bundle

for a remote
notification you can also
include it here as part of
the payload

```
},  
}  
}
```

Rich Notifications

More context and information in each notification
user can take direct action from the notification directly
no need to launch the app for many notifications and
the actions/content they provide

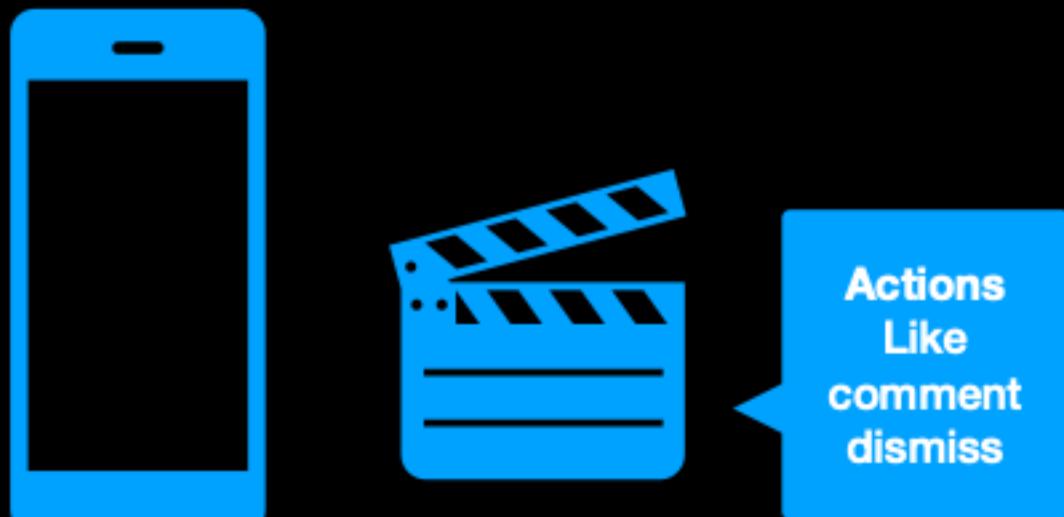
But what can
we add to make
things usable and
useful



(Rich Notifications)

Contextual Actions

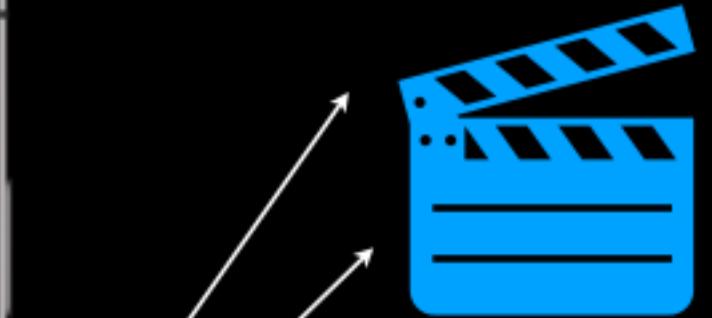
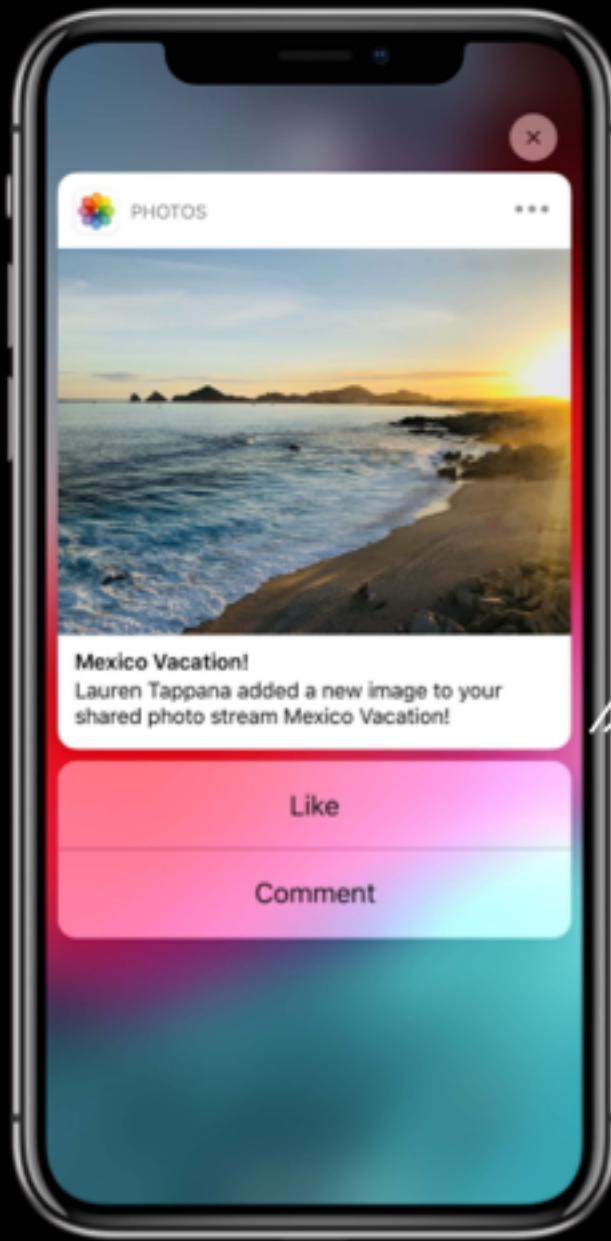
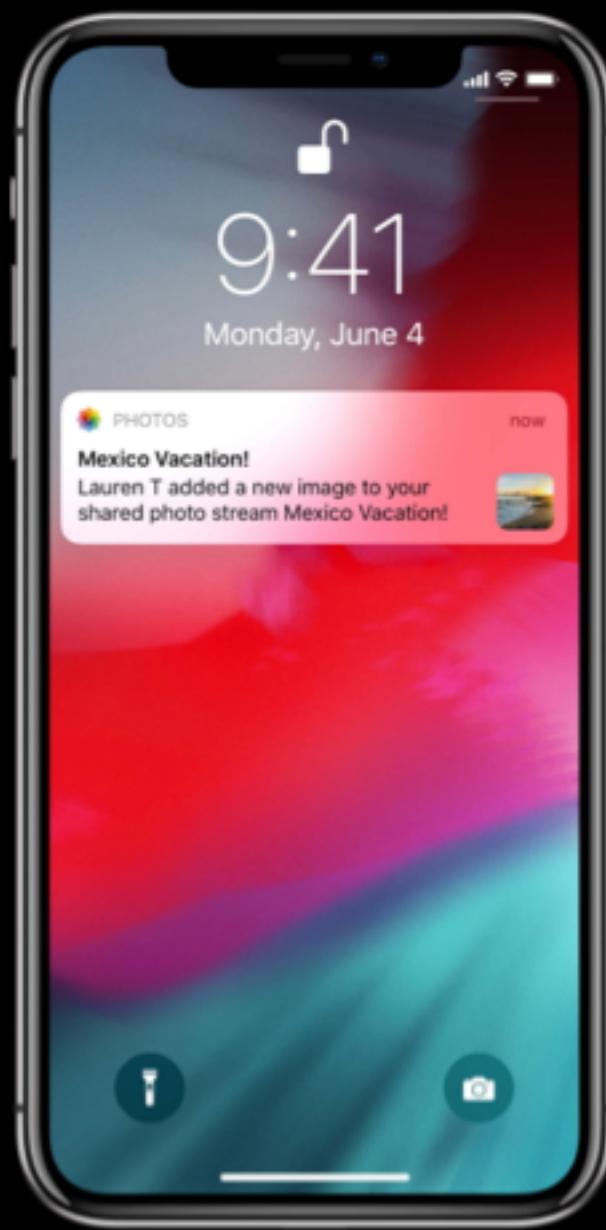
Contextual actions can provide a more engaging and meaningful notifications experience
Brings more value to the notification



Question

**Is this a rich notification?
Why or why not?**

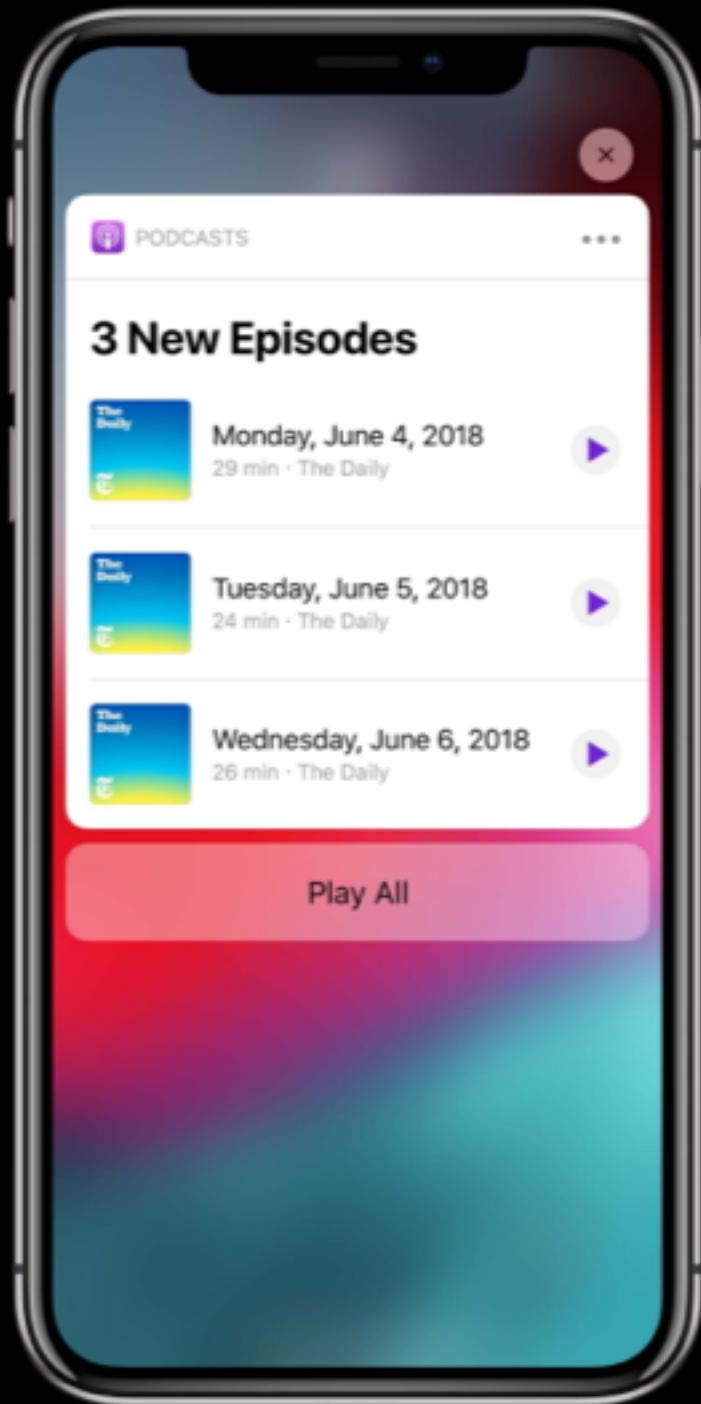




**Our rich and
contextual interactions**

Threaded Rich Notifications

**Rich notifications can summarize the entire
thread of grouped notifications**



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Patrick Sluth, iOS Developer

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Steve, iOS Desiigner

Wrap up

First run

Provide value

Considered delivery

Notification Grouping

Rich Notifications



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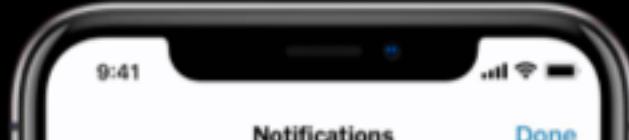
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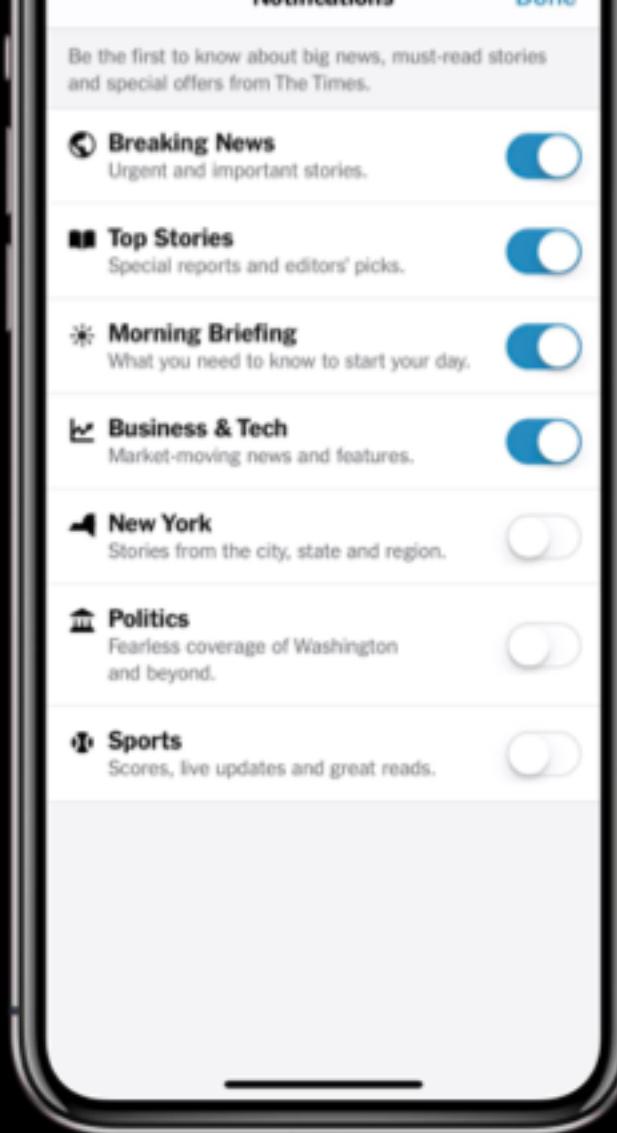
First run

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Considered delivery

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Rich Notifications



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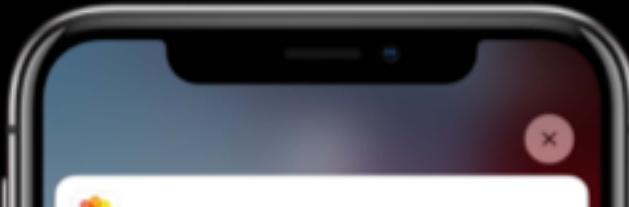
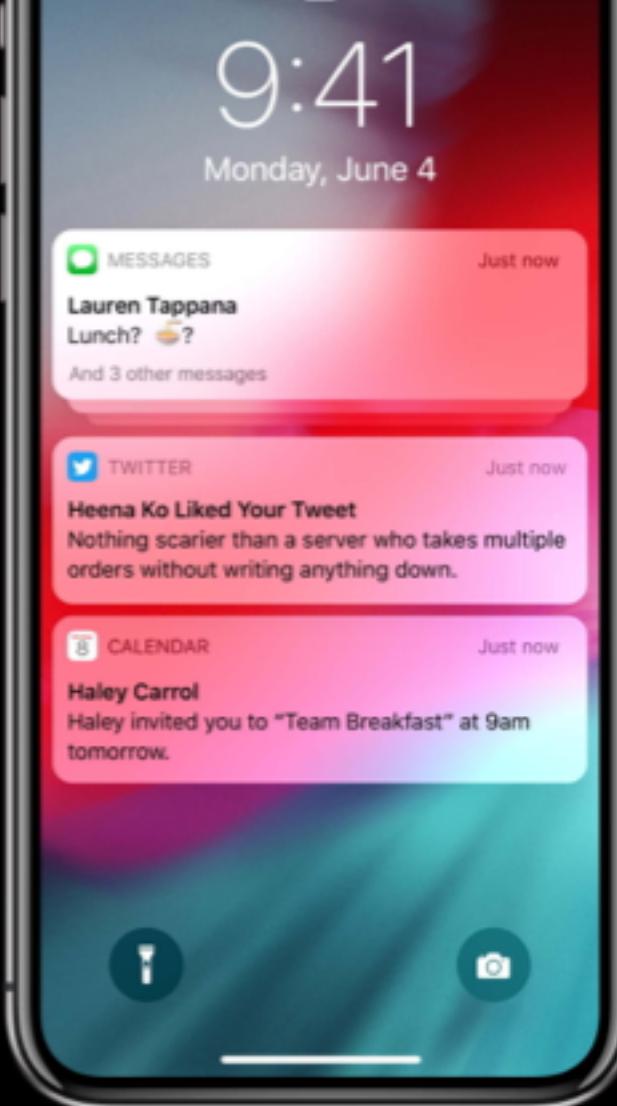
First run

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Notification Grouping

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Wrap up

wrap up

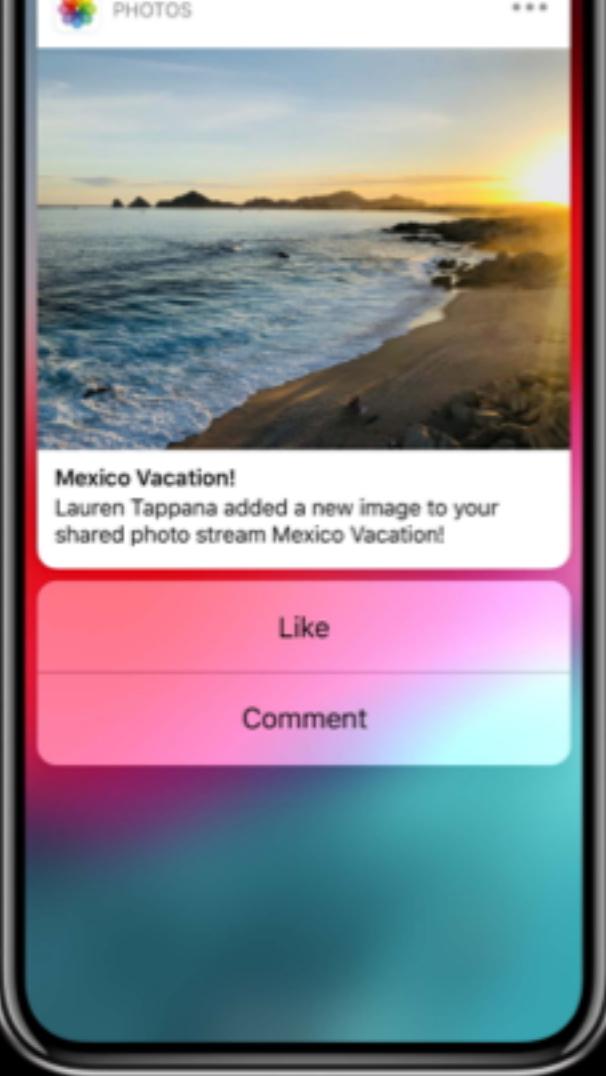
First run

Provide value

Considered delivery

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Rich Notifications



Questions?

Comments?

References

<https://developer.apple.com/design/human-interface-guidelines/ios/system-capabilities/notifications/>
<https://developer.apple.com/design/human-interface-guidelines/carekit/user-interaction/notifications-and-badging/>
Best Practices and What's New in User Notifications: <https://developer.apple.com/videos/play/wwdc2017/708/>
Rich Notifications: <https://developer.apple.com/videos/play/wwdc2017/817/>