Mastering the Living Room with tvOS

Tommy Payne, Designer
Caleb Davenport, Engineer
Felipe Cypriano, Engineer
Dale Taylor, Engineer
Browsing 😎
Connecting People Thoughtfully
Joy of Discovery
Content First
Best Practices
Remove Barriers
Simplify Interactions
Speed & Pacing
Overstimulation
Diversify the UI
Reduce Number of Elements
Meta-data
FEATURED MOVIE
A Star is Born
Use Pagination
Miles Morales comes across the long-dead Peter Parker. This Peter Parker is not from his world though; he's from somewhere else in the multiverse. With his guidance, Miles will become Spider-Man: and become part of the 'Spider-Verse'.

Action 2018 1 hr 52 min
Miles Morales comes across the long-dead Peter Parker. This Peter Parker is not from his world though; he's from somewhere else in the multiverse. With his guidance, Miles will become Spider-Man and become part of the 'Spider-Verse'.

Starring Shameik Moore, Jake Johnson, Hailee Steinfeld, Mahershala Ali
Director Bob Persichetti

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Better Ways to Browse 😎
Seasoned musician Jackson Maine (Bradley Cooper) discovers and fall in love with struggling artist Ally (Lady Gaga). She has just about given up on her dream to make it big as a singer... until Jack coaxes her into the spotlight.

Starring Bradley Cooper, Lady Gaga, Sam Elliott, Andrew Dice Clay
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Drama 2018 2 hr 15 min
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Director Bradley Cooper
Better Ways to Browse

- Simplify Interactions
- Use Chevrons
- Create Hierarchy
- Diversify the UI
- Avoid Overstimulation
- Remove Barriers
- Speed and Pacing
- Show Metadata
- Use Pagination
Content First
Top Shelf

Caleb Davenport, Engineer
Top Shelf Carousel
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Actions Carousel
Spider-Man: Into the Spider-Verse
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Details Carousel
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Action 2018 1 hr 52 min

Starring Shameik Moore, Jake Johnson, Hailee Steinfeld, Mahershala Ali

Director Bob Persichetti
Carousel Best Practices
Content Best Practices

Content discovery
Content Best Practices

Content discovery

Updated regularly
Content Best Practices

Content discovery

Updated regularly

5 to 10 items
Image Best Practices

1920 x 1080
Image Best Practices

1x Resolution
Image Best Practices

2x Resolution
Image Best Practices

tvOS Safe Area
Carousel Safe Area
Video Best Practices

1080p
Video Best Practices

1080p

HTTP Live Streaming
Video Best Practices

1080p

HTTP Live Streaming

Two to five minutes
Video Best Practices

1080p
HTTP Live Streaming
Two to five minutes
Audio
Spider-Man: Into the Spider-Verse
Miles Morales comes across the long-dead Peter Parker. This Peter Parker is not from his world though; he's from somewhere else in the multiverse. With his guidance, Miles will become Spider-Man: and become part of the 'Spider-Verse'.

Action 2018 1 hr 52 min
Top Shelf Extension
Top Shelf Items

TVTopShelfItem

Content Provider

- Carousel Content
  - Carousel Item
- Sectioned Content
  - Item Collection
  - Section Item
- Inset Content
  - Content Item
Demo

Felipe Cypriano, Engineer
Summary

Top Shelf
Summary

Top Shelf

Carousel
Summary

Top Shelf

Carousel

New extension and API
User Profiles

Dale Taylor, Engineer
TVUserManager
tvOS 13
TVUserManager
tvOS 13

What we do

• Supply current user identifier
• Notify when user identifier changes
• Provide system UI for mapping user identifiers to profiles
TVUserManager
tvOS 13
What you do

• Store user identifier to profile mapping
• Handle user identifier change
• Invoke system UI in your workflow
Before Profile Selection

Check for a profile mapped to the current user identifier

- TVUserManager.currentUserId
Let them watch 📺!
Prefer this Profile?

<App Name> will remember to use profile “Tommy” for the Apple TV user “Tommy Payne”. You can edit this later.

Prefer this Profile

Not Now
After Profile Selection

If no mapping exists

- `TVUserManager.shouldStorePreferenceForCurrentUser(to:completion:)`
After Profile Selection

If no mapping exists

- TVUserManager.shouldStorePreferenceForCurrentUser(to:completion:)

To modify mappings

- TVUserManager.presentProfilePreferencePanel(currentSettings: availableProfiles: completion:)
Preferred <App Name> Profiles

For each Apple TV user, these are the preferred profiles in <App Name>.

- **Tommy Payne**: "Tommy"
- Caleb Davenport: "Caleb"
- Felipe Cypriano: No Profile
- Dale Taylor: "Dale"

Done
Handling Updates
Handling Updates

User identifier change

• TVUserManager.currentUserIdentifierDidChangeNotification
Handling Updates

User identifier change

• `TVUserManager.currentUserIdentifierDidChangeNotification`

Profile change

• `TVUserManager.userIdentifiersForCurrentProfile`
Best Practices
Best Practices

Save the current state before switching profiles
Best Practices

Save the current state before switching profiles

Make the change clear and meaningful
User Profiles
User Profiles

If you have an app with profiles, take advantage of multiuser
User Profiles

If you have an app with profiles, take advantage of multiuser

Use TVUserManager to build a content first experience
Tab Bar
UITabBarController
tvOS 13
UITabBarController

tvOS 13

Scroll with content

- UIViewController.tabBarObservedScrollView = scrollView
UITabBarController
tvOS 13

Scroll with content

- UIViewController.tabBarObservedScrollView = scrollView

Fixed at top

- UIViewController.tabBarObservedScrollView = nil
UITabBarController

tvOS 13

Scroll with content

• UIViewController.tabBarObservedScrollView = scrollView

Fixed at top

• UIViewController.tabBarObservedScrollView = nil

Mind the safe area

• UIScrollView.contentInsetAdjustmentBehavior = .automatic
• UIView.safeAreaLayoutGuide
Accessory views

- UITabBar.leadingAccessoryView
- UITabBar.trailingAccessoryView
UITabBar

tvOS 13

Accessory views

• UI_Tab_Bar.leadingAccessoryView
• UI_Tab_Bar.trailingAccessoryView

Colors and fonts

• UI_Tab_Bar.standardAppearance

Modernizing Your UI for iOS 13

Wednesday, 5:00
Tab Bar

New UITabBar for tvOS 13
Tab Bar

NewUITabBar for tvOS 13

Appearance customization options
Rainbow
TVCollectionViewFullScreenLayout
tvOS 13

Designed to take advantage of the full screen
TVCollectionViewFullScreenLayout
tvOS 13

Designed to take advantage of the full screen

Easy to make layouts that feel familiar
TVCollectionViewFullScreenLayout

tvOS 13

Designed to take advantage of the full screen

Easy to make layouts that feel familiar

Highly flexible
TVCollectionViewFullScreenCell
tvOS 13

Masked Background View

Masked Content View

NEW
TVCollectionViewFullScreenCell
tvOS 13

Masked Background View

Masked Content View

1920 x 1080

NEW
TVCollectionViewFullScreenCell
tvOS 13

Masked Content View

Masked Background View
Masking
Masking
Masking

Mask Amount = 0.0
Masking

Mask Amount = 1.0
Masking: Cell

![Diagram showing content bleed within a cell]
Parallax
Parallax: Layout

Parallax Factor
Parallax: Cell

Parallax Offset
Parallax: Cell

Parallax Offset
Mask + Parallax

Rainbow
Mask + Parallax

Rainbow
Best Practices
Best Practices

Avoid starting animations or video until cell reaches center
Best Practices

Avoid starting animations or video until cell reaches center

Watch your offscreen passes
Best Practices

Avoid starting animations or video until cell reaches center

Watch your offscreen passes

Be mindful of memory usage
Best Practices

Avoid starting animations or video until cell reaches center

Watch your offscreen passes

Be mindful of memory usage
Also available in TVMLKit

- TVBrowserViewController
Also available in TVMLKit

- TVBrowserViewController

Easy to handle transition to and from shelf
Summary
Summary

Feature your content in top shelf
Summary

Feature your content in top shelf

Content first
Summary

Feature your content in top shelf

Content first

Make browsing easy
More Information

developer.apple.com/wwdc19/211

tvOS Lab  Wednesday, 4:00

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tvOS Lab  Friday, 9:00