

ATLS 4120/5120: Mobile Application Development

Week 4: App Strategy and Design

Mobile Strategy

- Companies want to engage with mobile users
- What mobile strategy makes sense?
 - Mobile web site
 - Develop your web site for desktop users and then adapt for mobile
 - Keep your web site so simple it works well on the mobile platform
 - Create a separate mobile web site for mobile devices
 - Responsive web site
 - A responsive web site adapts based on the screen size, resolution, and device that's accessing it
 - Single web site, multiple views
 - Same text, different presentation(usually)
 - Avoids major changes
 - Avoids maintaining multiple web sites
 - App
 - Designed specifically for mobile use
 - Apps are focused on one a specific task, more targeted than a web site
 - Immersive/sticky
 - Will your app be downloaded and repeatedly used?
 - Need to figure out an app strategy
 - Is it worth the cost?
 - Combination
- Know your target users
- Cost

App Strategy

(mobile app image)

- Native apps – iOS, Android, other
 - Separate development efforts
 - Can leverage platform specific features
 - Better integrated, more immersive
- Web app - HTML5
 - Develop once
 - Runs on any HTML5 device
 - Can't take advantage of platform specific feature
 - Often doesn't look or feel native
 - Not distributed through the app stores
- Hybrid
 - A web app wrapped in a native container that provides access to native UI and features
 - High amount of code reuse
 - Can go in the app stores

App Design

- What's the goal of your app?
- Come up with a description for your app that is clear, concise, and complete
- Who is your intended audience?
- Define your app
 - Features
 - Users
- Your goal and target audience should drive all the design decisions you make
- Common app types
 - Productivity apps
 - Use and manipulate information
 - iWork
 - Utility apps
 - Perform a specific task
 - Youtube, netflix
 - Immersive apps
 - Focused on delivering visually rich content
 - games

Design Principles

- Goal
 - Focus all your decisions on the task at hand and your target user
- Users
 - Target apps to a specific user level
 - Put the users in control
 - Get them to the relevant information quickly
 - Make sure that all user input is valuable
 - Provide subtle but clear, immediate feedback
 - Create a compelling user experience
 - User interaction consistency
- Simplicity
 - Download, install, start using quickly
 - Easy to figure out and use
 - Avoid unnecessary interruptions like unneeded alerts
 - Start instantly and be prepared to stop
- User interface elements
 - Use real-world metaphors
 - Provides familiarity for users
 - Use standard UI elements whenever possible
 - Take advantage of prior experience
 - Use UI elements as they are meant to be used
 - Controls should look and act consistently
 - Minimize the number of controls in a view
 - Always have a reason for custom UI elements
- Content
 - Provide only relevant, appropriate content that's useful to the immediate task
 - Don't overshadow the content
 - Avoid file handling and settings
 - If in doubt, leave it out

- Aesthetics
 - high quality media is expected
 - Integrate aesthetics with function
- Design for the device
 - Use layout that makes sense for the device
 - Adapt art to the screen size
 - Universal apps should have a consistent flow
 - Handle different orientations
 - Support common gestures
 - iPad apps shouldn't just be bigger
 - Responds to gestures and taps
 - The comfortable minimum size of tappable UI elements is 44 x 44 points

Mobile Design Process

- Research, brainstorm, gather requirements
- Define the goal, description, and audience
- Plan the interface and functionality
- Design the user interface
- Design the architecture and program flow
- Develop and test incrementally
- Prototype
 - Get user feedback
- Refine and iterate

Designing Intuitive User Experiences (about 32 mins)

<https://developer.apple.com/videos/play/wwdc2014/211/>

start 4:34

Platform Savvy/Conventions 9:11 - 16:30

Language 39:05-45:10

Icons 45:10-49:45

Animation 49:55-51:20

Simple 51:20-55

Focus 55:05-1:00

Much more detail provided in Apple's iOS Human Interface Guidelines

<https://developer.apple.com/ios/human-interface-guidelines/>