

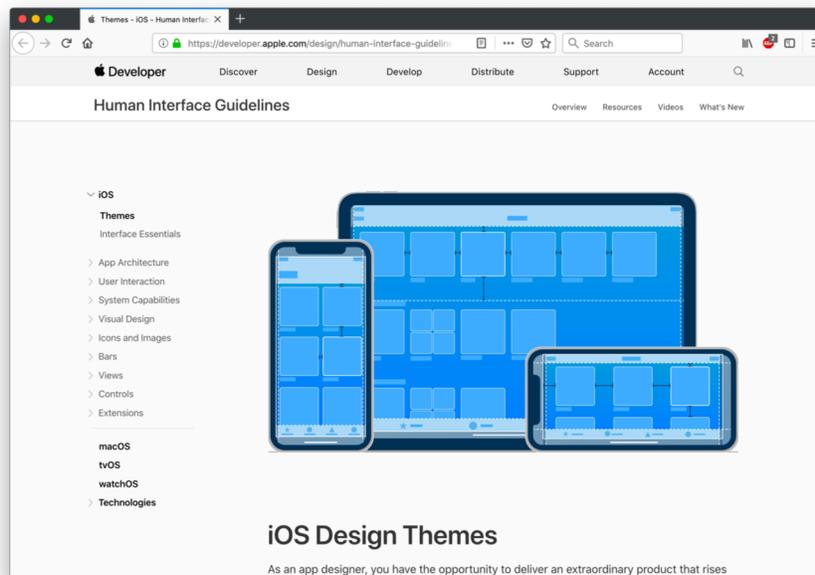
CSC 581: Mobile App Development

Spring 2019

Design Guidelines

- *iOS Human Interface Guidelines* (Apple)
 - themes: clarity, deference, depth
 - principles: aesthetic integrity, consistency, direct manipulation, feedback, metaphors, user control
- *The Guide to Mobile App Design: Best Practices for 2018 and Beyond* (UXPin)
 - UX fundamentals: minimize cognitive load, optimized user flow, reduce clutter, self-evident navigation...

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iOS design themes (from Apple Developer)

Clarity

- text is legible at every size
- icons are precise and lucid
- adornments are subtle & appropriate
- a sharpened focus on functionality motivates the design

Deference

- fluid motion & a crisp interface help people understand & interact with content
- content typically fills the entire screen, while translucency/blurring hint at more
- minimal use of bezels, gradients & drop shadows keep the interface light & ensure that content is paramount

Depth

- distinct visual layers & realistic motion convey hierarchy & facilitate understanding
- touch & discoverability heighten delight and enable access to functionality
- transitions provide a sense of depth as you navigate through content

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iOS design principles

Aesthetic Integrity - an app's appearance and behavior should integrate with its functionality

Consistency - should implement familiar standards and paradigms by using system-provided UI elements, well-known icons, standard text styles, and uniform terminology

Direct Manipulation - the direct manipulation of onscreen content engages people and facilitates understanding

Feedback - acknowledges actions and shows results to keep people informed

Metaphors - people learn more quickly when an app's virtual objects and actions are metaphors for familiar experiences

User Control - people are in control; the app can suggest or warn, but actions and decision making are in the hands of the user

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iOS design guidelines

- ✓ interface essentials
 - bars tell people where they are, provide navigation
 - views contain the primary content people see
 - controls initiate actions and convey information
- ✓ accessibility
 - provide alternative text labels for images, icons, and interface elements
 - test your app with accessibility features
- ✓ loading
 - show content as soon as possible and make it clear when loading is occurring
- ✓ modality
 - preventing people from doing other things until the current mode is complete is sometimes necessary, but should be avoided whenever possible

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iOS design guidelines

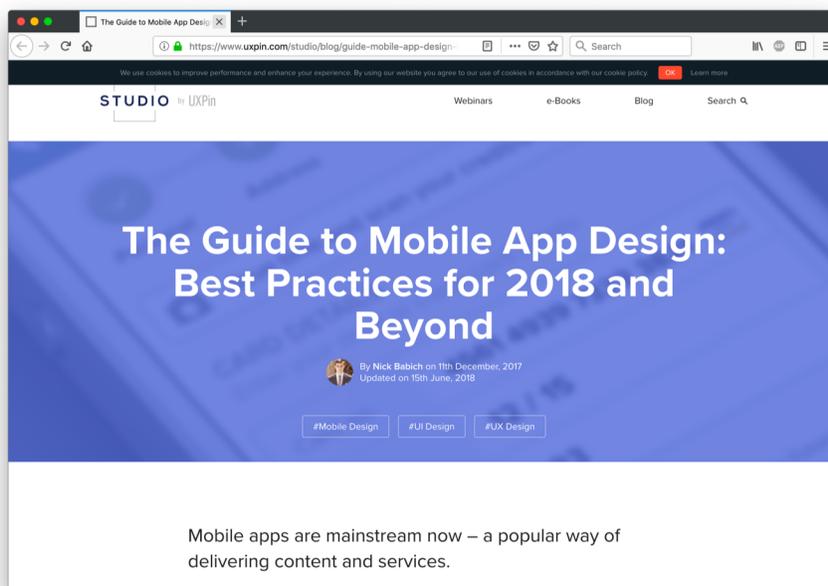
- ✓ navigation
 - navigation can be hierarchical, flat, or content-driven
 - always provide a clear path (including backwards)
- ✓ launching
 - design a launch experience that is fast, fun, and educational
 - restore the previous state when your app restarts
- ✓ requesting permission
 - request personal data only when your app clearly needs it and it cannot be accessed automatically (e.g., from location)
- ✓ data entry
 - when possible, provide choices or reasonable default values
 - dynamically validate fields and only advance if valid entries obtained
- ✓ gestures
 - use standard gestures for standard actions (tap, drag, flick, swipe, pinch, ...)
- ✓ notifications
 - use sparingly – can be banner (disappears shortly) or alert (manually dismissed)

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iOS design guidelines

- ✓ **adaptivity & layout**
 - extend visual elements to fill the screen; support diff screen sizes & orientations
 - provide ample touch targets for interactive elements
 - use visual weight and balance to convey importance
- ✓ **branding**
 - incorporate refined, unobtrusive branding; defer to content over branding
- ✓ **color**
 - use color judiciously for communication, choose a key color to indicate interactivity
 - choose a limited color palette that complements your logo/branding
 - be aware of colorblindness, cultural attitudes to colors
- ✓ **fonts**
 - if possible, use a single typeface (iOS uses San Francisco)
- ✓ **image size & resolution**
 - supply high-res images of all artwork (@2x and @3x)
- ✓ **notifications**
 - use whenever possible, since they will be familiar to users

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UXPin best practices

- ✓ minimize cognitive load
 - minimize confusion, things the user has to remember
- ✓ optimize user flow
 - understand how users interact with the app, streamline as much as possible
 - e.g., chunking for big tasks, always provide a natural next step
- ✓ cut out the clutter
 - deliver relevant info (signal) while avoiding irrelevant info (noise)
- ✓ make navigation self-evident
 - e.g., communicate the current location, don't hide nav. controls, be consistent
 - design elements should look like they behave, utilize intuitive gestures
 - provide visual feedback to make interaction comfortable
- ✓ design for interruption
 - make it easy to re-engage with the app if interrupted or distracted
- ✓ focus on first time experience
 - make the app appear fast with skeleton screens
 - annoying notifications are the #1 reason people uninstall apps

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Questions

1. On the first page of the Apple site, there is a list of 6 high-level design principles: aesthetic integrity, consistency, direct manipulation, feedback, metaphors, and user control. Select an app that you use regularly, and give it a grade in each of these areas. Briefly describe why you assigned each grade.
2. Review the Apple site, which is produced by Apple for its developers. Identify and describe three guidelines or design tips that you found especially informative and potentially useful.
3. Review the *Best Practices* article, which is produced by UXPin (a third-party community of designers and marketers). Identify and describe three guidelines or design tips that you found especially informative and potentially useful.
4. Did you find that the design guidelines produced by UXPin largely agreed with those from Apple? Can you identify any instances where the advice from the two sites was at odds?
5. Did you learn any design principles from these sites that have caused you to rethink your project design? If so, what aspects of the design are you considering changing? If not, describe briefly how your initial design is supported by the design principles from the sites.

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