Outline

- Interaction design vs. visual design
- Timeline of use
- Implicit interactions
- The basics
  - 80/20 rule
  - Affordances
  - Consistency
  - Mapping
  - Progressive disclosure
  - Visual hierarchy
  - Organizing information

What is Interaction Design?
The practice of designing interactive digital products, environments, systems, and services

Interaction Design vs. Visual Design

How much overlap?

Where does it fit in the process?

Empathize
Define
Ideate
Prototype
Test

What to think about when you are designing

Timeline of Use

People will use your UI over time

Timeline how to

- Think about not just first use but 2nd use, and 10th use…how do things change?
- What stays fresh? What becomes tedious?
"Sensing and computation need to be augmented with an understanding of the unstated expectations people have from our interactive counterparts."

- Wendy Ju

The Design of Implicit Interactions

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You use a DVR to record a show

DVR suggests a show you might like

What does this mean for your UIs?

Think about all the potential ways the user is implicitly interacting with your experience.

Example: Light switch state: On/Off

User’s State:
- Can see the light is on
- Sees the light is on but thinks it should be off
- Doesn’t notice the light is on but would want it off
- Might want to turn it off if it were clear how to
- Doesn’t know if he is responsible for the light or not
Implicit interactions how to

- Consider all the mental states that the user might have when they are engaging with your interface (make a list!)
- How will the interface react? What social cues will it use?

and don’t forget the basics…

80/20 rule

A high percentage of effects in any large system are caused by a low percentage of variables. Also know as Pareto’s Principle. — Universal Principles of Design

“Users use 20% of the features 80% of the time.”

80/20 rule: CS247 microwave redesign

- Removed unnecessary buttons
- Only functionality to increase time
- Most important buttons larger

80/20 rule: Cross-platform design

80/20 rule how to

- List all the things your user may want to do
- Select 20% of them as the key things
- Ensure those 20% of things are easy & fast
- Question your need for the other 80%

Affordances

Consistency
Mapping

A relationship between controls and their movements or effects. Good mapping between controls and their effects results in greater ease of use. – Universal Principles of Design

Progressive disclosure

Visual hierarchy and reading order

Reading order pillars

5 ways to organize information (five hat racks)

Combining it all
What to consider

- Timeline of use
- Implicit interactions
- Basics
  - 80/20
  - Consistency
  - Mapping
  - Progressive disclosure
  - Order
  - Hierarchy

Virgin America

Edward Tufte on visualizing information

How should I design a bar chart?

Source: The Visual Display of Quantitative Information by Edward R. Tufte

Other reference books

- Universal Principles of Design by Lidwell, Holden, and Butler
- Designing for Interaction by Dan Saffer
- The Non-Designer’s Design Book by Robin Williams
- Don’t Make Me Think by Steve Krug

Inspiration and resources

- Inspiration
  - https://www.pinterest.com/timoa
  - http://pttrns.com/

- Icon resources
  - Noun Project
  - FontAwesome