Lecture 6
Designing Interactions

Notes from
The UX Book, Chapter 17
Learning Objectives

- Understand approaches to designing interactions
  - Considering the whole ecosystem of interacting devices
  - Model with storyboards and wireframes
  - Ensure consistent styles
Designing for Interaction Needs

- Supporting tasks
  - How the user interacts with the ecology of systems
  - Displays
  - Controls
  - Sensory, cognitive and physicals actions

- Different devices need different interactions designs
  - Different form factors
  - Different usage conventions
  - Different constraints
  - Different capabilities

Schipor et al. 2019
Creating an Interaction Design

- Identify devices and their roles
- Ideation around user stories and requirements
- Develop conceptual design
  - Use design patterns where appropriate
- Leverage interaction design patterns
  - E.g., a button, or search feature
- Establish information architecture for each device
- Envision interaction flows across devices
Exercise #1

- TV show scheduling app
  I’m always forgetting about TV programs that I’d like to watch. For me there is a disconnect between browsing what’s on in a night, then scheduling what I’m going to watch, and then remembering what channel I was going to watch when. Why isn’t there a connection between my devices and the TV so that this could be more automated. With reminders and alerts. Even with the TV switching on and going to the right channel.
  - What devices could you use
  - What role does each support
  - What user stories and requirements do they support
  - What interaction flows are there between devices
Example: Tanenbaum et al. (2010)

- The Reading Glove: DI for Tangible Storytelling
Storyboards

- Visual “frames” illustrating interplay of user and ecology
  - Demonstrate potential of system for a problem
Storyboards

- Can illustrate transition to other “frames”
Exercise #2

- TV show scheduling app
  - Storyboard getting a notification on a device and using this to drive a function on another device (e.g., the TV turning on for the right channel at the right time)
Example: Caramiaux et al. (2015)

- Designing Interactions from Sonic Memories

Figure 4. Sketch of sonic incident: *Stormtrooper Alarm*, showing effect of being awoken by an alarm clock

Figure 5. Sonic incident as reactions: *Stepping on Cat*, a series of reactions, first by cat, then of the user to the sound

Figure 2. Sensing hardware used in the workshops
Wireframes

- Progress to representation of designs for screens
Wireframes

- Initially not an exact representation
Wireframes

- Trial alternates from ideation
Intermediate Interaction Design

- Increased fidelity of selected designs

![View a Camping Area](image-url)
Intermediate Interaction Design

- Leading to final interaction design

RESERVE A CAMPSITE

- Glentanner Park Centre
- Mount Cook National Park
- A003
- RV, Non-electric
- $150.00
- Reservation Fee: $10.00
- Total: $160.00

Review and pay

- Confirm reservation

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Interaction Design Production

- Sufficient detail to be a specification for implementation
Custom Style Guides

- Defines patterns to be used in project for each element
Example: Kildal et al. (2012)

- Kinetic Device: DI with a Deformable Mobile Interface
Sources


