

USER INTERFACE DESIGN + PROTOTYPING + EVALUATION

## Concept Videos & Video Prototypes

Prof. James A. Landay  
 University of Washington

CSE 440  
 January 31, 2013

### Hall of Fame or Shame?

Paper iPad App  
 By 53

### Kyoto

19 pages

Gestures like Pinching out to move forward, inwards to go back – as if you were opening or closing a book

### Hall of Fame!

**Good**

- pens feel natural & the app is extremely good for its only real purpose; idea generation / notation
- once 3 basic gestures are learned, they become a natural part of rapid ideation
- look & feel is important here as the tools are "pleasurable" & work as expected

**Bad**

- gestures are not easily discoverable and require a short initial tutorial

Paper iPad App  
 By 53

300 m  
 TURN RIGHT ONTO DRAAIWEG  
 TURN LEFT ONTO NOLENSLAAN

iOS 6 Maps  
 By Apple Inc.

### Hall of Fame or Shame?

### Hall of Shame!

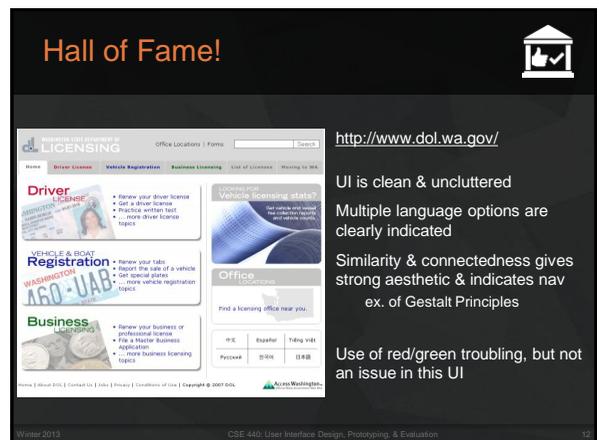
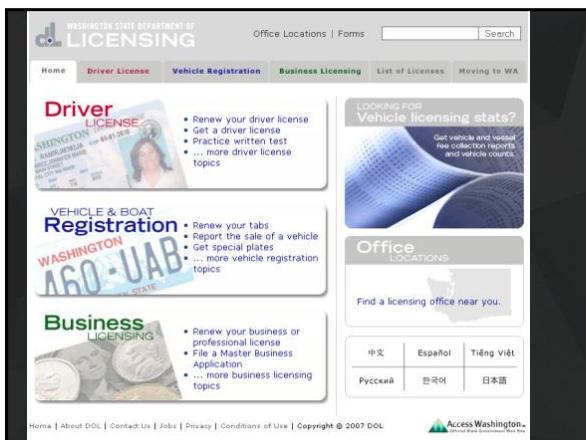
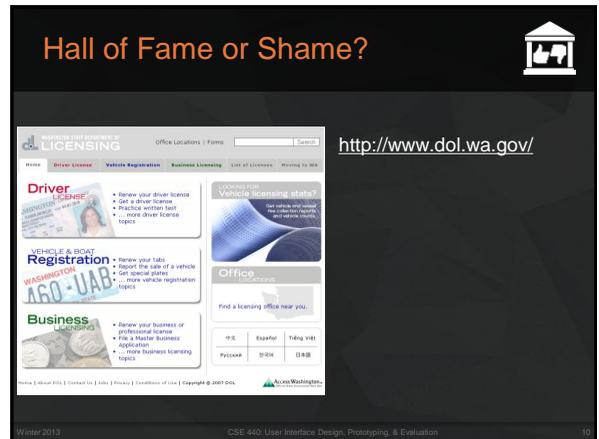
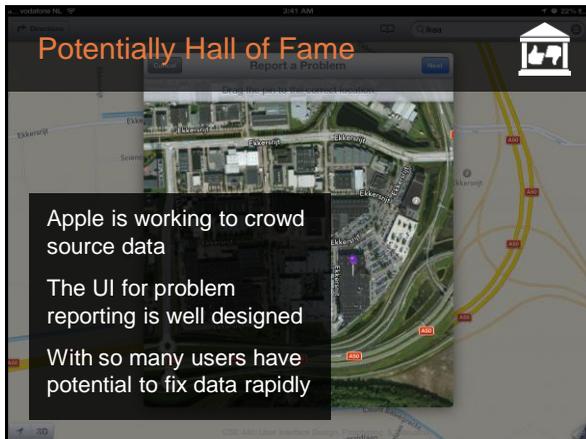
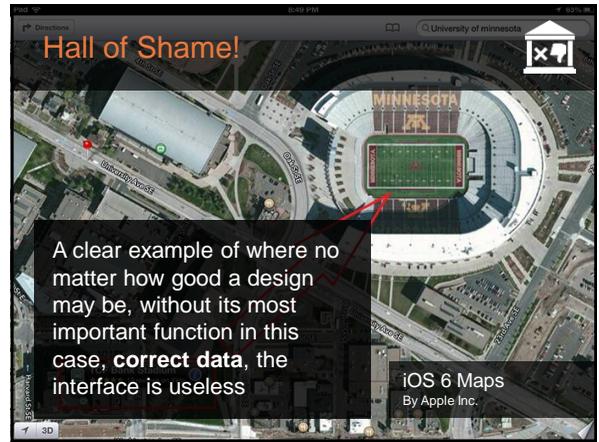
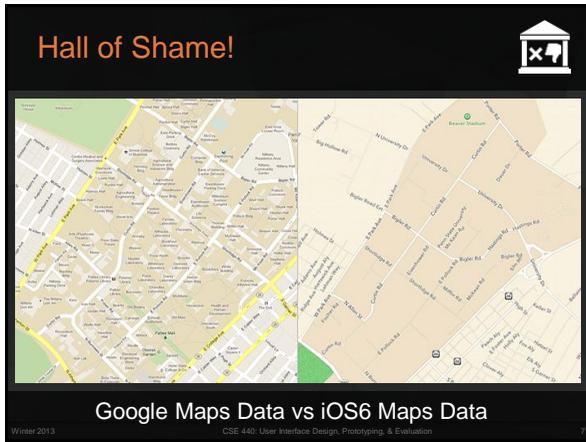
**Good**

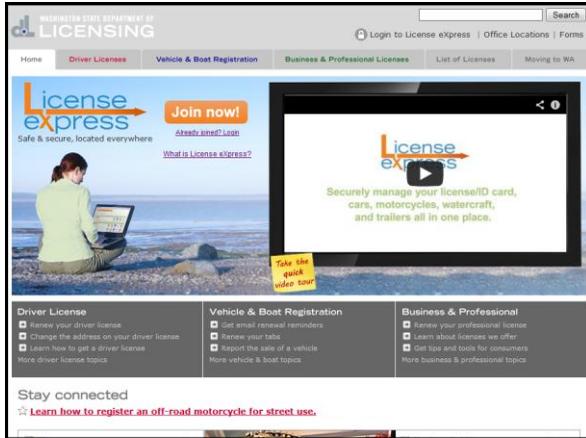
- beautiful alternative to the competition & generally easier to read
- turn by turn directions are efficient, clear & functions well – in general

**Bad**

- despite any aesthetics, the data is **wrong & sparse**, meaning, it does not perform the one task it **should do well** – getting from A to B

iOS 6 Maps  
 By Apple Inc.





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## Concept Videos & Video Prototypes

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## Outline

- Review Human Abilities
- Types of Prototypes
- Video Brainstorming
- Video Prototyping
- Concept Videos

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## Human Abilities Review

- Color can be helpful, but pay attention to
  - how colors combine
  - limitations of human perception
  - people with color deficiency – caused by,
    - lack of R or G cones or different distribution of cones
- Model Human Processor
  - three processors
    - perceptual, motor, cognitive processors + memory
  - model allows us to make predictions
    - e.g., perceive distinct events in same cycle as one
- Memory
  - three types:
    - sensor, WM, & LTM
  - interference can make hard to access LTM
  - cues in WM can make it easier to access LTM
- Key time to remember: 100 ms

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## Types of Prototypes

Prototypes are concrete **representations** of a design

Prototype dimensions

- representation: form of the prototype
  - off-line (paper) or on-line (software)
- precision: level of detail (e.g., informal or polished)

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## Types of Prototypes

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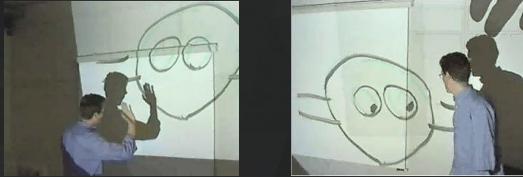
Prototype dimensions

- representation: form of the prototype
  - off-line (paper) or on-line (software)
- precision: level of detail (e.g., informal or polished)
- interactivity: watch-only vs. fully interactive
  - fixed prototype (video clips)
  - fixed-path prototype (each step triggered by specified actions)
    - at extreme could be 1 path or possibly more open (e.g., Denim)
  - open prototype (real, but limited error handling or performance)
- evolution: expected life cycle of prototype
  - e.g., throw away or iterative

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## Video Brainstorming

- Participants act ideas out in front of a video camera
- Goal is to create as many new ideas as possible
  - each should take 2-5 minutes to generate & capture
  - run standard brainstorming session first for ideas
- Advantages
  - video easier to understand later than notes
  - participants actively experience interaction & preserve record of the idea



Video brainstorming of an animated character in *Prototyping Tools & Techniques* by Beaudouin-Lafon & Mackay. Character follows user with its eyes.

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## Video Prototyping

- Illustrate how users will interact w/ system
- Unlike brainstorming, video prototyping contracts the design space
- Quick to build
- Inexpensive
- Forces designers to consider details of how users will react to the design
- May better illustrate context of use



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## Forms of Video Prototypes



Paper Prototypes, Existing Software or Projected Images as a background



Optional Narration, Conversation preferred  
narrator explains events & others move images/illustrate interaction while actors perform movements – viewer expected to understand w/o voice-over



Usually fixed prototypes, but can also use in open prototypes  
e.g., live video as Wizard of Oz tool & 2nd camera to capture



With good storyboards, a good short film can be shot in 1 hour

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## Wizard of Oz Video Prototype

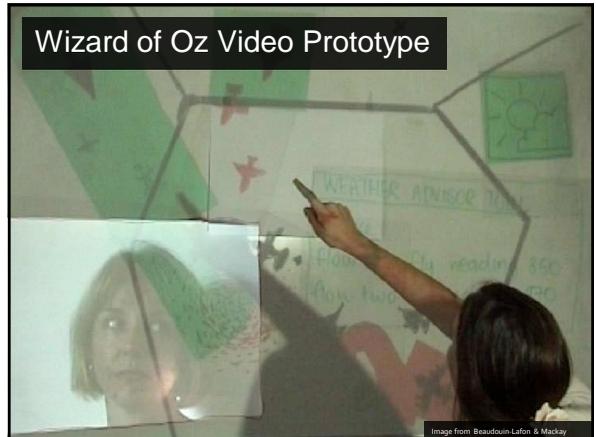
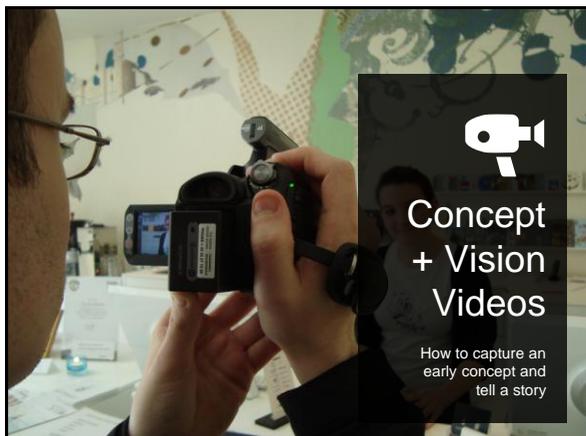
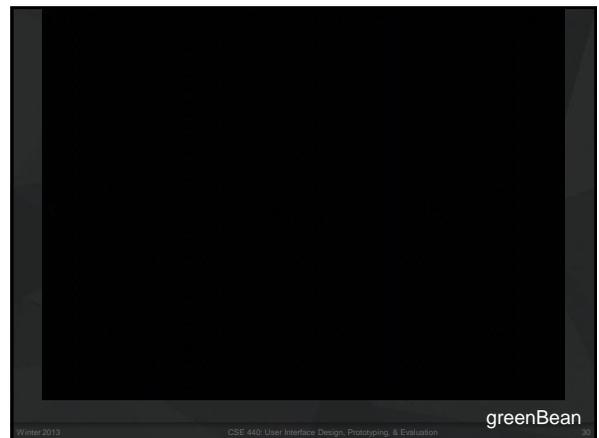
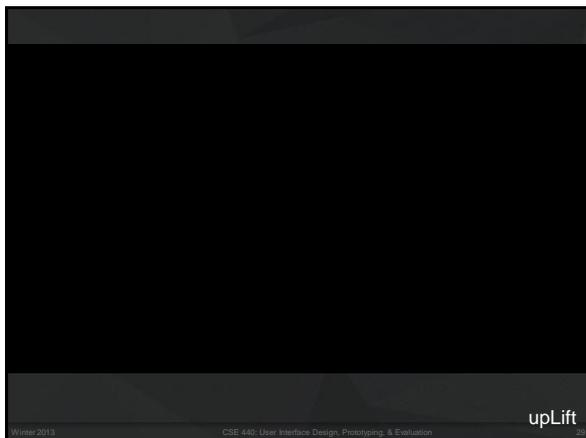
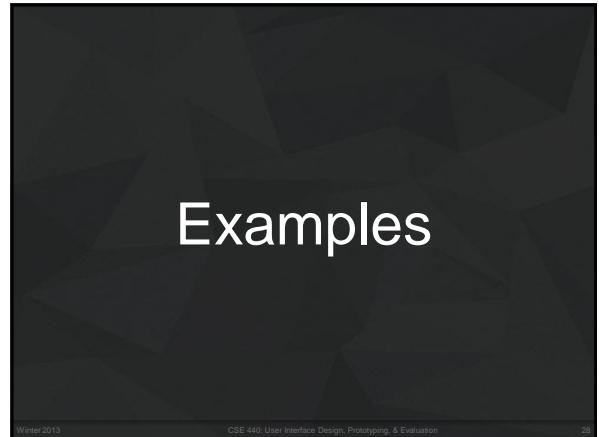
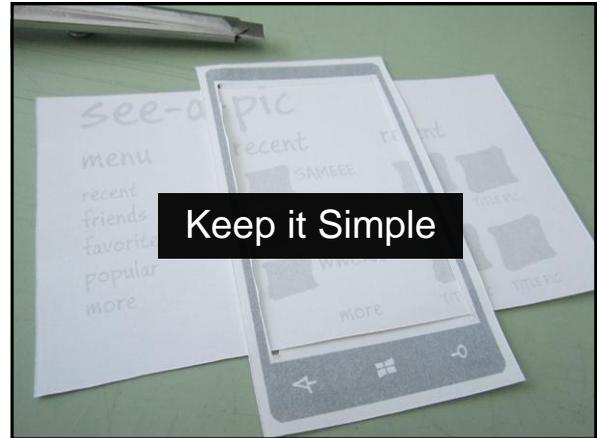
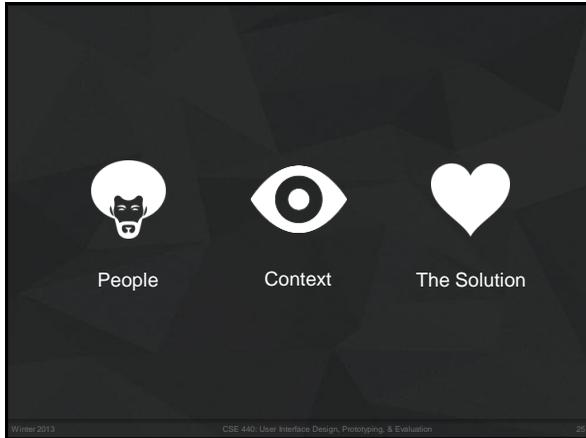
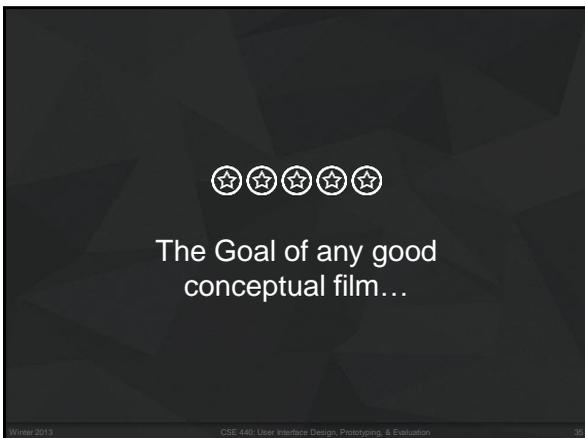
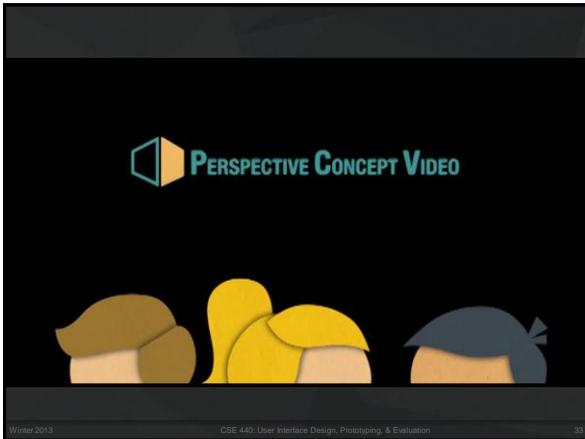
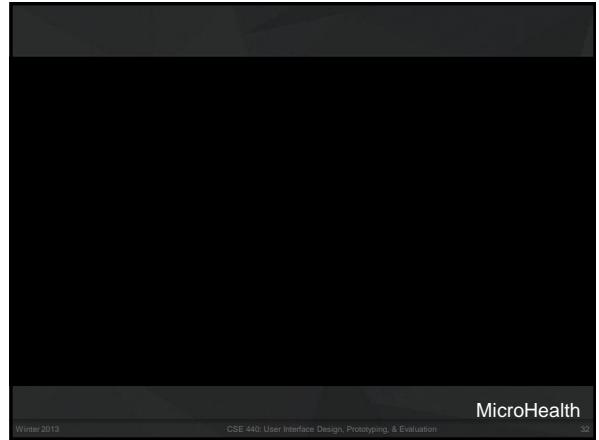


Image from Beaudouin-Lafon & Mackay







## Making a Concept Video

 Define  
What is the **message** of the film?  
Can you describe it in a few lines?

 Make a basic **plot**  
Discuss plot ideas until you get a few that really make sense, decide characters

 Storyboard  
Turn these into multiple storyboards of scenes to plan how you will film it  
\* note: **not** UI storyboards!

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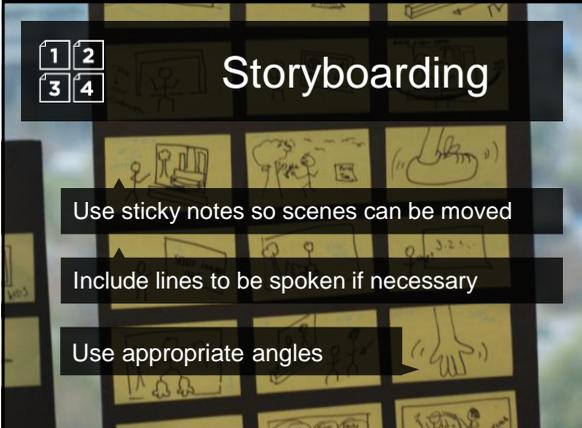
## Storyboarding

 1 2  
3 4

Use sticky notes so scenes can be moved

Include lines to be spoken if necessary

Use appropriate angles



 If you choose to use music  
Now might be a good time to pick some songs. Music can be very powerful if chosen well. (see Vimeo for music you can use free)

 Shoot your Film  
Get as many shots as you can! you never know what might be useful later.

 Edit your Film  
Use your storyboard! This part should be simple if you have storyboarded correctly.

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## High Quality Video Prototypes



By Pedro Andrade, CIID

## High Quality Video Prototypes

Final Perspective Video

## More Example Videos

- **Video Prototypes**
  - [cluster](#)
  - [dont\\_forget](#)
  - [dont\\_forget2](#)
  - [dont\\_forget\\_russian](#)
  - [Cell Phone Music Player](#)
  - [CarbonShopper](#)
  - [StyleEye](#)
- **Concept Videos**
  - [Lingolmmersion](#)
  - [MicroHealth](#)
  - [Perspective](#)
  - [Musistant](#)
  - [Project Harmony](#)
  - [Wanderlust](#)
  - [MicroHealth](#)
- **Final Hi-Fi Videos**
  - [Perspective](#)
  - [Rii](#)
  - [Hero](#)
  - [Paintora](#)

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## Summary

- Video prototypes allow us to quickly communicate how a user will use a design
- Concept videos set up more of the story of use
- Both techniques are useful

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## Next Time

- Contextual Inquiry / Task Analysis / Sketches Presentations
  - required practice talks (TAs will send signups)
- Thursday
  - Conceptual Models & Interface Metaphors
    - Read [Norman Chapter 1](#) (subset)
  - Hall of Fame / Shame Assignment Due (individual)

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