

USER INTERFACE DESIGN + PROTOTYPING + EVALUATION

Concept Videos & Video Prototypes

Prof. James A. Landay
 University of Washington

Autumn 2012

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!

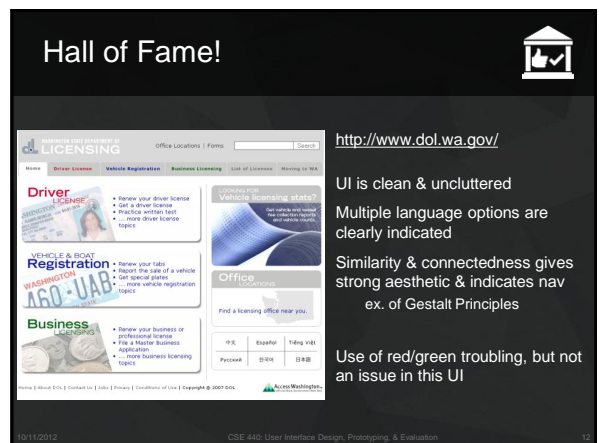
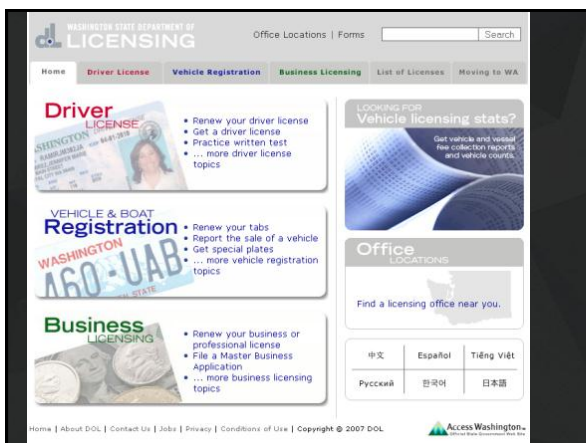
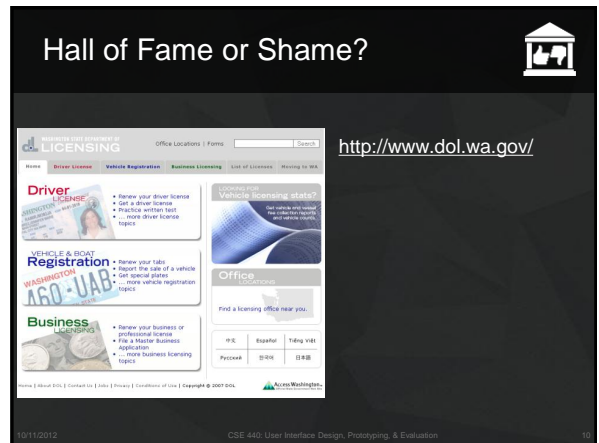
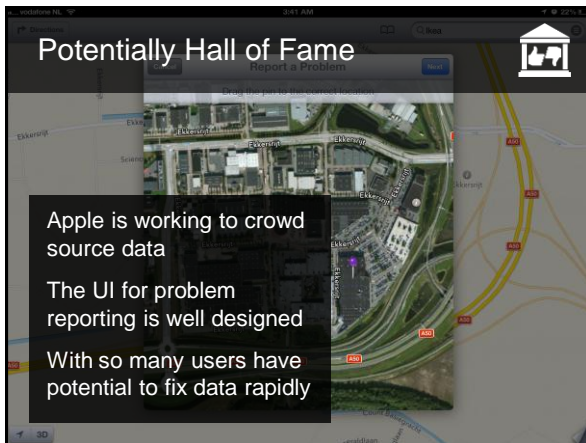
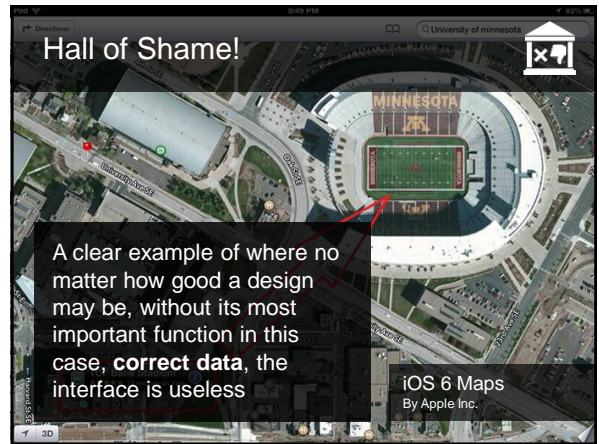
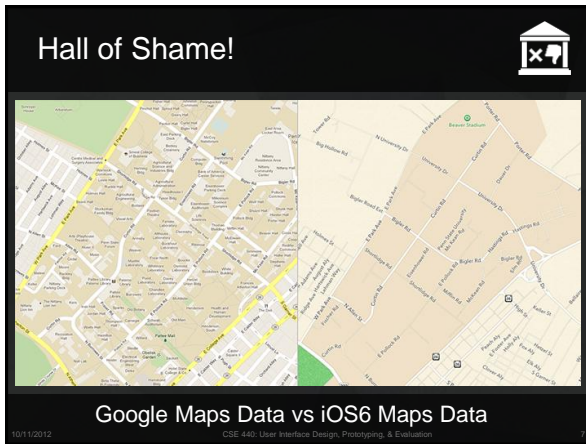
Good

- 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.



USER INTERFACE DESIGN + PROTOTYPING + EVALUATION

Concept Videos & Video Prototypes

Prof. James A. Landay
University of Washington

Autumn 2012

Outline

- Review Design Exploration
- Types of Prototypes
- Video Brainstorming
- Video Prototyping
- Concept Videos

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 14

Design Exploration Review

- Selecting tasks ?
 - real tasks with reasonable functionality coverage
 - complete, specific tasks of what customer wants to do
- Sketching allows exploration of many concepts in the very early stages of design
- As investment goes up, need to use more and more formal criteria for evaluation
- Informal prototyping tools bridge the gap between paper & high-fi tools


10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 15

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)



10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 16

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)
- 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

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 17

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.

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 18

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



10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

19

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 actors perform movements & viewer expected to understand w/o voice-over



Usually fixed prototypes, but can also use in open prototypes
EG: Live video as a Wizard of Oz tool & 2nd camera to capture



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

10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

20

Wizard of Oz Video Prototype

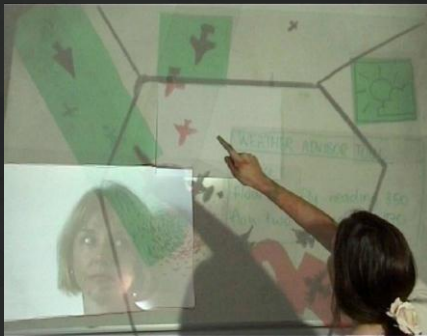
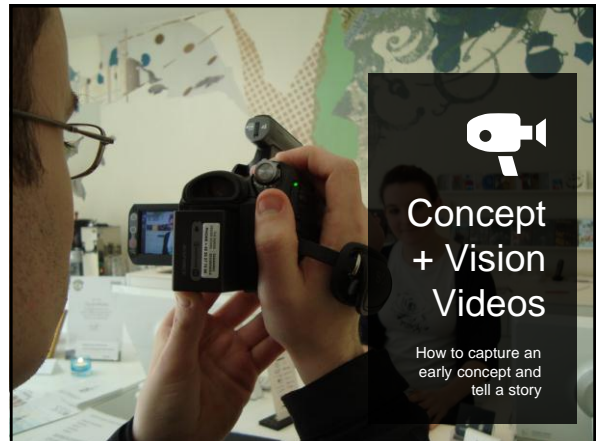


Image from Beaudouin-Lafon & Mackay

10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

21



Concept + Vision Videos

How to capture an early concept and tell a story

It's About Stories



10/11/2012



People



Context

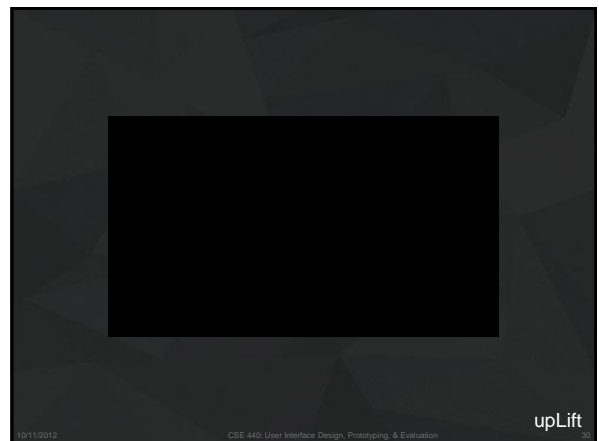
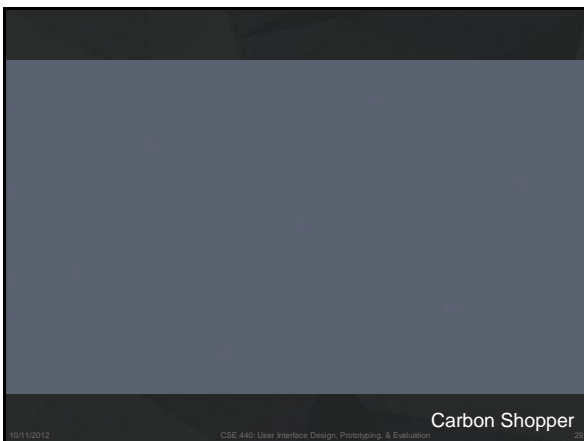
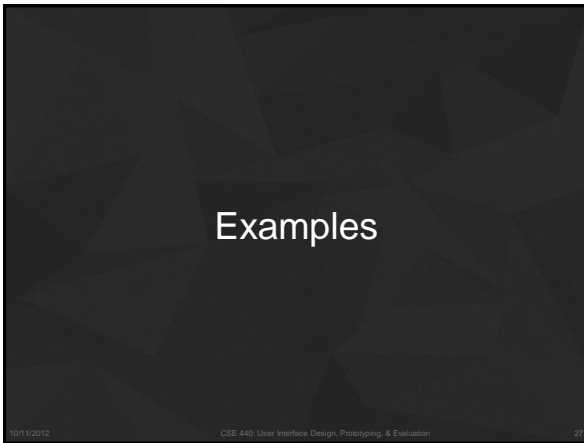
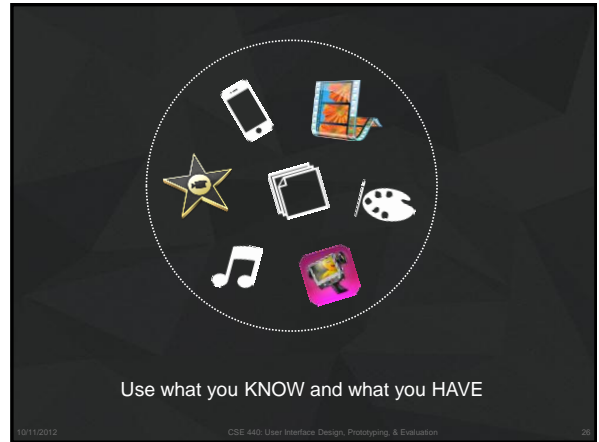


The Solution

10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

24




☆☆☆☆


The Goal of any good conceptual film...


10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 24


Someone should be able to understand your project simply by watching your film.




10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 25

 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 boards of scenes to plan how you will film it

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 26


 Storyboarding


Use sticky notes so scenes can be moved


Include lines to be spoken if necessary

Use appropriate angles

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 27

 If you choose to use music
Now might be a good time to pick some songs. Music can be very powerful if chosen well.

 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.

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 28

High Quality Video Prototypes



By Pedro Andrade, CIID

10/11/2012 CSE 440: User Interface Design, Prototyping, & Evaluation 29

More Example Videos

- **Video Prototypes**
 - [cluster](#)
 - [dont_forget](#)
 - [dont_forget2](#)
 - [dont_forget_russian](#)
 - [Cell Phone Music Player](#) (Nick Kong, UC Berkeley CS160)
 - [CarbonShopper](#)
 - [StyleEye](#)
- **Concept Videos**
 - [Lingolmmersion](#)
 - [MicroHealth](#)
 - [Perspective](#)
- **Final Hi-Fi Videos**
 - [MicroHealth](#)
 - [Perspective](#)
 - [Rii](#)
 - [Hero](#)
 - [Paintora](#)

10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

27

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

10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

28

Next Time

- Human Abilities (Jake Wobbrock)
- Reading
 - [Ch. 2: The Human Information Processor, from The Psychology of Human-Computer Interaction](#) By [Stuart K. Card, Thomas P. Moran, & Allen Newell, 1983, pp. 23-83](#)

10/11/2012

CSE 440: User Interface Design, Prototyping, & Evaluation

29