

User Interface Design, Prototyping, and Evaluation

# Video Prototyping

Prof. James A. Landay  
University of Washington  
Autumn 2008

October 14, 2008

## Hall of Fame or Shame?



• <http://www.dol.wa.gov/>

## Hall of Fame



- <http://www.dol.wa.gov/>
- UI is clean & uncluttered
- Multiple language options are clearly indicated
- Similarity & connectedness to present strong aesthetic & indicate navigation
  - ex. of Gestalt Principles
- Use of red/green troubling, but not an issue in this UI

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## Outline

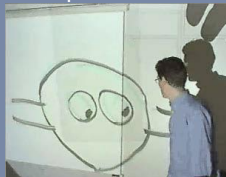
- Review
- Types of Prototypes
- Video Brainstorming
- Video Prototyping
- Forms of Video Prototyping
- Steps to Create Video Prototypes
- Tips & Tricks
- Introductions

## 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

## 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 Boudouin-Lafon & Mackay. Character follows user with its eyes.

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7

## 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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8

## Forms of Video Prototypes

- May build upon paper prototypes or use existing software & images of real settings
- Narration optional
  - 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
  - live video as a Wizard of Oz tool & 2nd camera to capture
- If have good storyboards, should be able to create video prototype in 1 hour

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9

## Wizard of Oz Video Prototype

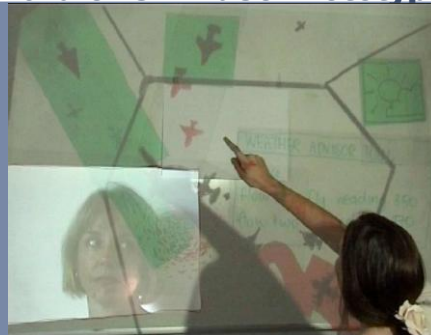


Image from Boudouin-Lafon & Mackay

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10

## Steps to Create a Video Prototype

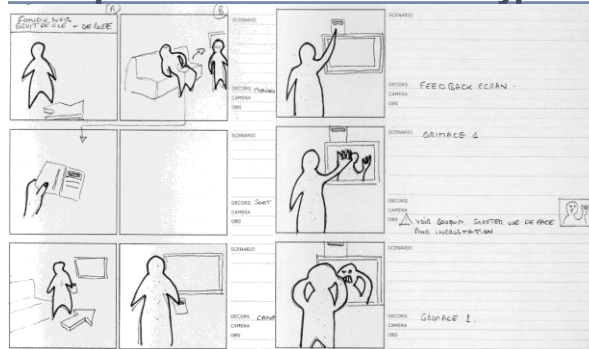
- 1) Review field data about users & work practices
- 2) Review ideas from video brainstorm
- 3) Create use scenario in words
- 4) Develop storyboard of each action/event w/ annotations explaining what is happening in scene. Put each element on a card.

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11

## Steps to Create a Video Prototype



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12

## Steps to Create a Video Prototype

- 1) Review field data about users & work practices
- 2) Review ideas from video brainstorm
- 3) Create use scenario in words
- 4) Develop storyboard of each action/event w/ annotations explaining what is happening in scene. Put each element on a card.
- 5) Shoot a video clip for each storyboard card
  - avoid editing in the camera – just shoot in storyboard order
- 6) Use title cards to separate clips (like a silent movie)
  - if you make an error, rewind to last title card & reshoot

## Example Videos

- [BuddyMap](#)
- [QuitIt](#)
- [TripMe](#)
- [What's Happening](#)

## Video Prototyping Tutorial

## Tips & Tricks

- Add structure to better explain context
  - begin with a title
  - follow with an “establishing shot”
    - shows user in context defined by the scenario
  - create series of closeup & mid-range shots, interspersed with title cards to tell the story
  - place a final card with credits at the end
- Use colored paper for title cards to make easy to find when editing/searching video
- “Time-lapse photography” lets images appear & disappear based on user interaction
  - e.g., illustrate pop-up menu by recording clip of user pressing button, pause camera, add menu, restart camera
- Be careful about taking video out of the original design setting for ethical reasons (context matters)

## High Quality (& Budget) Video Prototypes

## Next Time

- Presentations