Low-Fi Prototyping

No screens

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COMS 4170
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Goal 2
When the needs and abilities of users are unclear, design systems by learning from iteration and experimentation.

Keep a list of the party planning committee

Clear needs, abilities, goal

Unclear needs, abilities, goal
Brainstorm Ideas

The best way to have a good idea is to have lots of ideas.

- Linus Pauling
How do we get from idea to execution?
The Waterfall Model

Idea
Requirements
Design
Implement
Fix bugs
Finished Product!

Intuitive and linear, but **risky**
Not flexible enough to adapt to unknowns
Iterative Design mitigates risk:

Every new **concept** is a risk. Every risk needs to be **prototyped**.
Low-Fidelity Prototypes
Pixar makes the some of the most detailed, beautiful and poignant films
They always start with a **storyboard**. Why?

Storyboard can test the coherency of a story at a high level, while it is still easy to change it.
It’s not just animated films. Live-action use storyboards, too.
Storyboards are also good for prototyping software interactions.

Given a task or goal, can the user navigate through the system coherently?
Application: Fitness Tracker
Application: GPS Driving Guidance
Application: Plan your class schedule
Paper Prototypes
Paper Prototypes:

• Put your low-fi prototype in front of users.
• Give them a task.
• Ask them to think out loud as they do the task.
• Don’t interrupt them.
• Don’t lead them.
• Observe “critical incidents”
  • Times they are unsure
  • Times they did the wrong thing
• Write it down, possible take photos.
Interface #1:
Task: “Get directions to locations A, B, C and D.”
Interface #2:
Task: “Get directions to locations A, B, C and D.”
What if the prototype is too polished?
Getting user feedback from a paper prototype:

• Give the user a **task:**
  • “Log into the system and post on somebody’s wall”
  • “Search for tweets using the most popular hashtag”
  • “Add a new slide with two column template”
  • “Edit a post”

• **Observe** what they do
  • Encourage people to think-aloud
  • Look for “critical incidents.”
    • Times were users are unsure what to do, do the wrong thing
Milestone #3 Feedback
Feedback on specificity of interaction

**Good specificity of interaction:**
“make notes on specific parts of the video”
“click on [something else] to bring up a video”
“replay specific segments in slow motion”
“take a screenshot”
“draw on a screenshot”

**On the right track, but needs a little more:**
“compare two videos”: how? What is the user looking for in the comparison?
“create a playlist”: anything more task-specific?
“make comments”: Where? How? What’s the best way to make comments in this domain?

**Needs more specificity:**
“search”: what do you do after they’ve found them
“play”: what is a more specific way you can play them to aid this task
“Rate” or “order”: what more can you do to support this task.
Many of you embedded YouTube videos...

THERE IS ANOTHER
way to get videos to play.
Group Brainstorming Activity
Activity: Sharing your Specific Needs

• Find a group of 3 or 4 *without leaving your seat.*
  • 20 seconds.
DONE!
Activity: Sharing your Specific Needs

• Find a group of 3 or 4 without leaving your seat.
  • 30 seconds.

• Find out everyone’s first name.
  • What is your rank alphabetically?
    • Eleanor (1), Lucille (2), Lydia (3), Tessa (4)
  • 30 seconds
DONE!
Activity: Sharing your Specific Needs

• Person #1: Share 1 specific need.
  • The idea doesn’t have to be perfect!
  • Others:
    • Brainstorm ways to make it even more specific, or
    • Brainstorm ways to make it use different specifics.
• Person #1:
  • Listen.
  • Write it down.
  • Don’t defend your idea.
  • Say “thank you,” even if you hate the ideas.

• 5 minutes
5 min
1 min
Anything helpful?
Activity: Sharing your Specific Needs

• Person #2: Share 1 specific need.
  • Others:
    • Brainstorm ways to make it even more specific, or
    • Brainstorm ways to make it use different specifics.
  • Person #2:
    • Listen.
    • Write it down.
    • Don’t defend your idea.
    • Say “thank you,” even if you hate the ideas.

• 5 minutes
5 min
1 min
Anything helpful?
Activity: Sharing your Specific Needs

• Person #3: Share 1 specific need.
  • Others:
    • Brainstorm ways to make it even more specific, or
    • Brainstorm ways to make it use different specifics.
  • Person #3:
    • Listen.
    • Write it down.
    • Don’t defend your idea.
    • Say “thank you,” even if you hate the ideas.

• 5 minutes
5 min
1 min
Anything helpful?
Activity: Sharing your Specific Needs

• Person #4 (or #1 or other): Share 1 specific needs.
  • Others:
    • Brainstorm ways to make it even more specific, or
    • Brainstorm ways to make it use different specifics.
  • Person #4 (or other):
    • Listen.
    • Write it down.
    • Don’t defend your idea.
    • Say “thank you,” even if you hate the ideas.

• 5 minutes

What person
Uses what videos and
How they interact with it
To achieve what goal
5 min
1 min
Anything helpful?
Summary
Brainstorm Ideas

The best way to have a good idea is to have lots of ideas.

- Linus Pauling
How do we get from idea to execution?
Iterative Design mitigates risk:

Every new concept is a risk. Every risk needs to be prototyped.
Low-Fi Prototypes mitigate risk by getting feedback on the most fundamental aspects of the design first.

Given a task or goal, can the user navigate the interaction coherently?
Pixar starts with storyboards.
Software starts with paper prototypes
Milestone #4: Paper Prototype (due Monday @ class)

Pick two of your specific needs
• For each specific need, make a paper prototype for two different designs.
• For each design, have at least one task you want to test with users that gets at the coherency of the interaction.

Bring your prototype to class, and we will test on people.
TA Office Hours

Tessa: Thursday 3/29 9:30 - 11 AM
Lucille: Friday 3/30 10:30 - 12PM
Eleanor: Monday 4/2 1:30 - 3:30PM