

Low-Fi Prototyping

No screens



Prof. Lydia Chilton
COMS 4170
28 March 2018

Say your name



Goal 2

When the needs and abilities of users are unclear, design systems by **learning from iteration** and experimentation.

Part 3: Editing the Party Planning Committee

The interface to edit the party planning committee (PPC) is a drag and drop direct manipulation interface as described below.

1. The PPC UI needs to display two lists:
 - 1) a list of all the [employees seen here](#), and
 - 2) a list of people on the party planning committee.

In its default state, the party planning committee list must have a div at the top of the list to serve as a drop target.

3. Using JQuery Draggable and Droppable, the PPC list to the head of the of the PPC list, a must also be true: names from the PPC list. This must be implemented in the Module.

4. To cue that an element is draggable, its background turns light yellow, and the border turns light blue.
5. While the item is being dragged, the background turns light yellow, and the border turns light blue.

6. While the item is being dragged, it should have a shadow.
7. While the item is being dragged, the background of the drop target turns light yellow.
8. When the item is dragged over the drop target, the background of the drop target turns light yellow.
9. If an item is "dropped" anywhere other than the drop target, the background of the drop target turns light yellow.

Note:
When the user toggles between the Logging and the Party Planning Committee, the current list should be stored in a javascript variable that should be there. However, for this implementation, it is not necessary.
Please submit your HTML, CSS, and JS files, a

Columbia Paper Infinity

Home Log Sales Party Planning Committee

People

Party Planning Committee

1: Angela

1: Phyllis

2: Dwight

3: Oscar

4: Creed

5: Pam

6: Jim

7: Stanley

8: Michael

9: Kevin

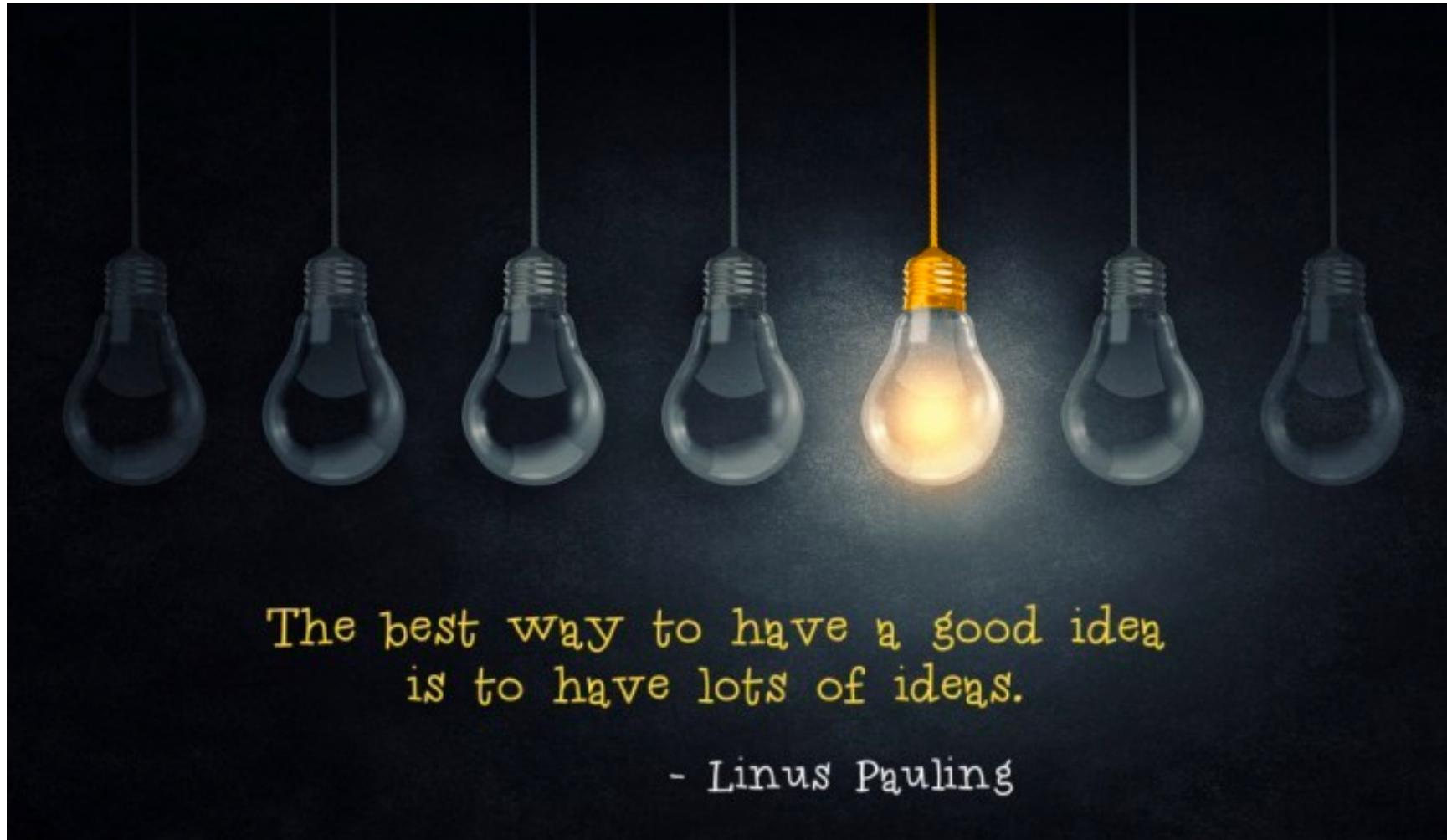
10: Kelly

Keep a list of the party planning committee

Clear needs, abilities, goal

Unclear needs, abilities, goal

Brainstorm Ideas



How do we get from idea to execution?



Idea

Product

The Waterfall Model

Intuitive and linear, but **risky**
Not flexible enough to adapt to unknowns



Idea

Requirements

Design

Implement

Fix bugs

Finished Product!



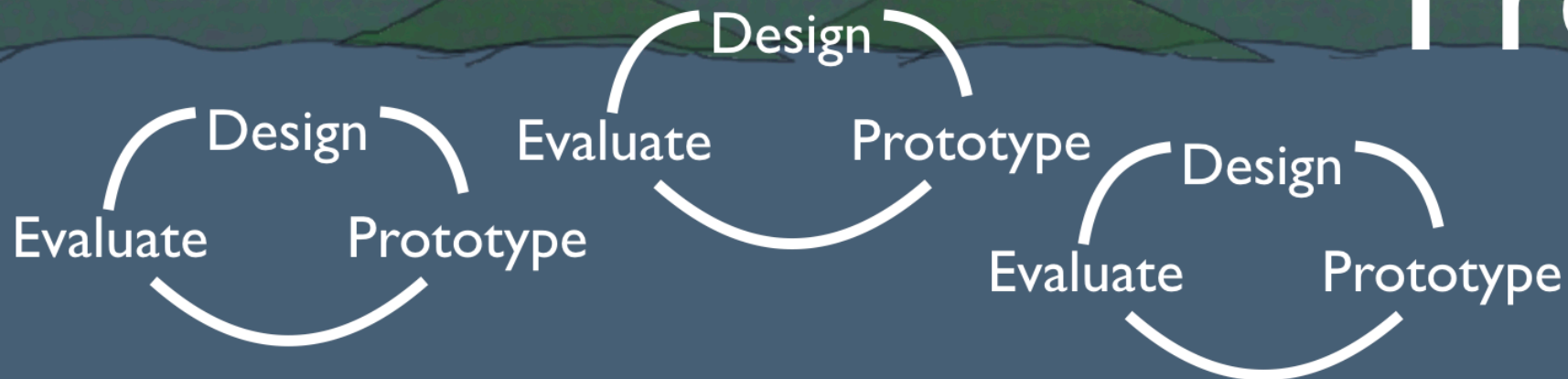
Iterative Design mitigates risk:

Every new **concept** is a risk.
Every risk needs to be **prototyped**.



Idea

Product

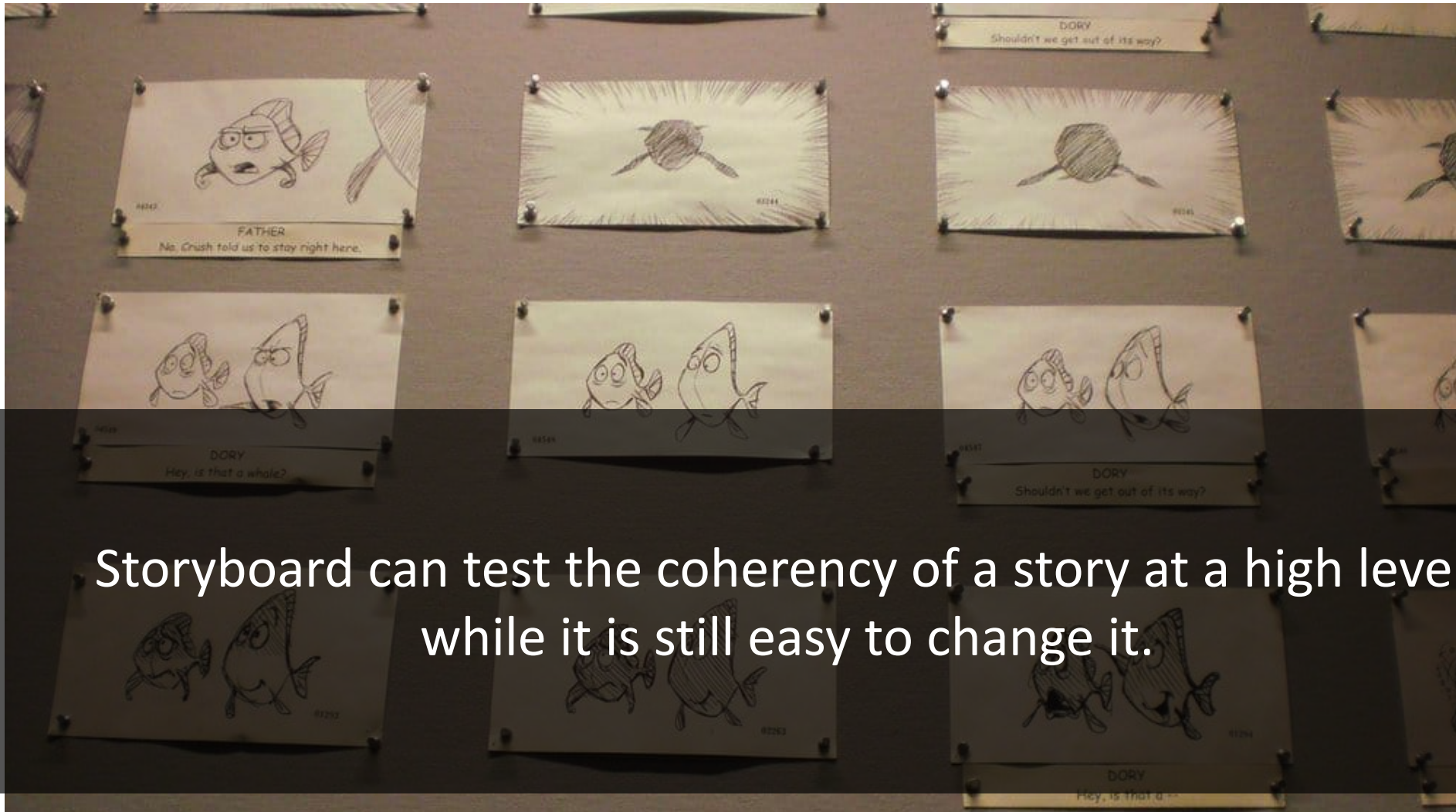


Low-Fidelity Prototypes

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.

REVISED SEP 8 1982 ©L.F.L. 1982



DESCRIPTION: EXT. FOREST - MS LUKE & LEIA - TRUCKING
 Luke & Leia coming toward camera. Behind them,
 Biker #3 & Biker #4 bank in, chasing.

NOTES:

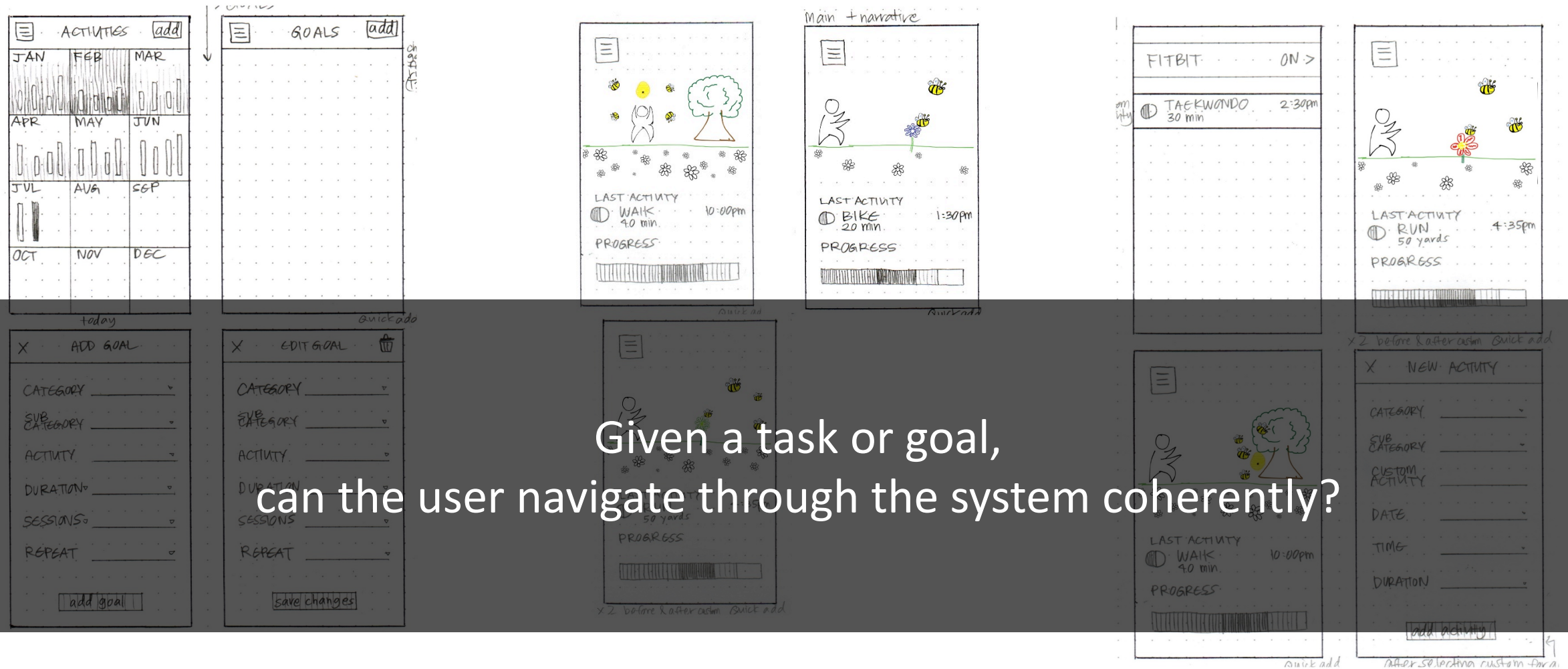
ELEMENTS:	STAGE	ANIM	PLATE	MATTE	NON-ILM	ELEMENTS:	STAGE	ANIM	PLATE	MATTE	NON-ILM
Forest			X								
Luke			X								
Leia			X								
Biker #3	X										
Biker #4	X										

SHOT # / SEQUENCE
 27-28
BC 28

FRM COUNT
 50

PAGE #

Storyboards are also good for prototyping software interactions



Given a task or goal,
can the user navigate through the system coherently?

Application: Fitness Tracker

ACTIVITIES add

JAN	FEB	MAR
APR	MAY	JUN
JUL	AUG	SEP
OCT	NOV	DEC

today

GOALS add

quick add

X ADD GOAL

CATEGORY

SUB CATEGORY

ACTIVITY

DURATION

SESSIONS

REPEAT

add goal

X EDIT GOAL trash

CATEGORY

SUB CATEGORY

ACTIVITY

DURATION

SESSIONS

REPEAT

save changes

quick add

LAST ACTIVITY
WALK 40 min 10:00pm

PROGRESS

Main + narrative

LAST ACTIVITY
BIKE 20 min 1:30pm

PROGRESS

x 2 before & after custom quick add

LAST ACTIVITY
RUN 50 yards 4:35pm

PROGRESS

fitbit

FITBIT ON >

TAEKWONDO 2:30pm
30 min

x 2 before & after custom quick add

LAST ACTIVITY
RUN 50 yards 4:35pm

PROGRESS

quick add

LAST ACTIVITY
WALK 40 min 10:00pm

PROGRESS

X NEW ACTIVITY

CATEGORY

SUB CATEGORY

CUSTOM ACTIVITY

DATE

TIME

DURATION

add activity

after selecting custom for a

Application: GPS Driving Guidance



Application: Plan your class schedule

The image shows a hand-drawn mockup of an application titled "EECS Schedule Planner". The interface includes a menu, a grid for scheduling, a help window, and various input fields.

Menu:

- + Add a course
- Drop a course
- Q Search for a course
- V View Requirement
- P Help
- ≡ Preferences
- Print
- Update teleboards
- Save

Header: **ESP** EECS Schedule Planner

Add Menu

Help - Add Menu

- ▷ Select Department from drop down menu.
- ▷ Enter course number.
if you don't know course number, press SEARCH button.
- ▷ Press ADD to continue transaction.
- ▷ click CANCEL to end transaction.

Grid:

	Monday	Tuesday
8-9		
9-10		
10-11		
11-12		
12-1		
1-2		
2-3		
3-4		
4-5		
5-6		

Form Elements:

- Dept. ▼
- course.
- transaction.
- SEARCH
- HELP

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.

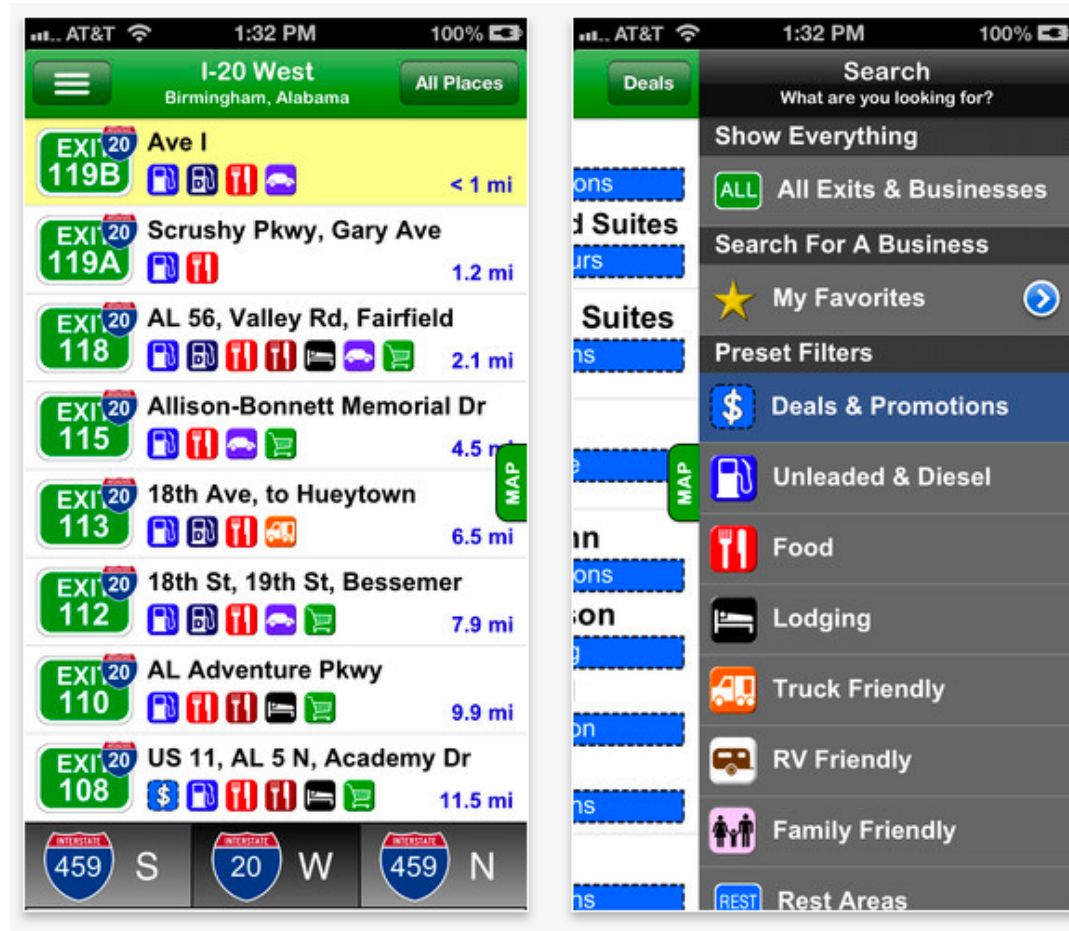
Interface #1:

Task: "Get directions to locations A, B, C and D."

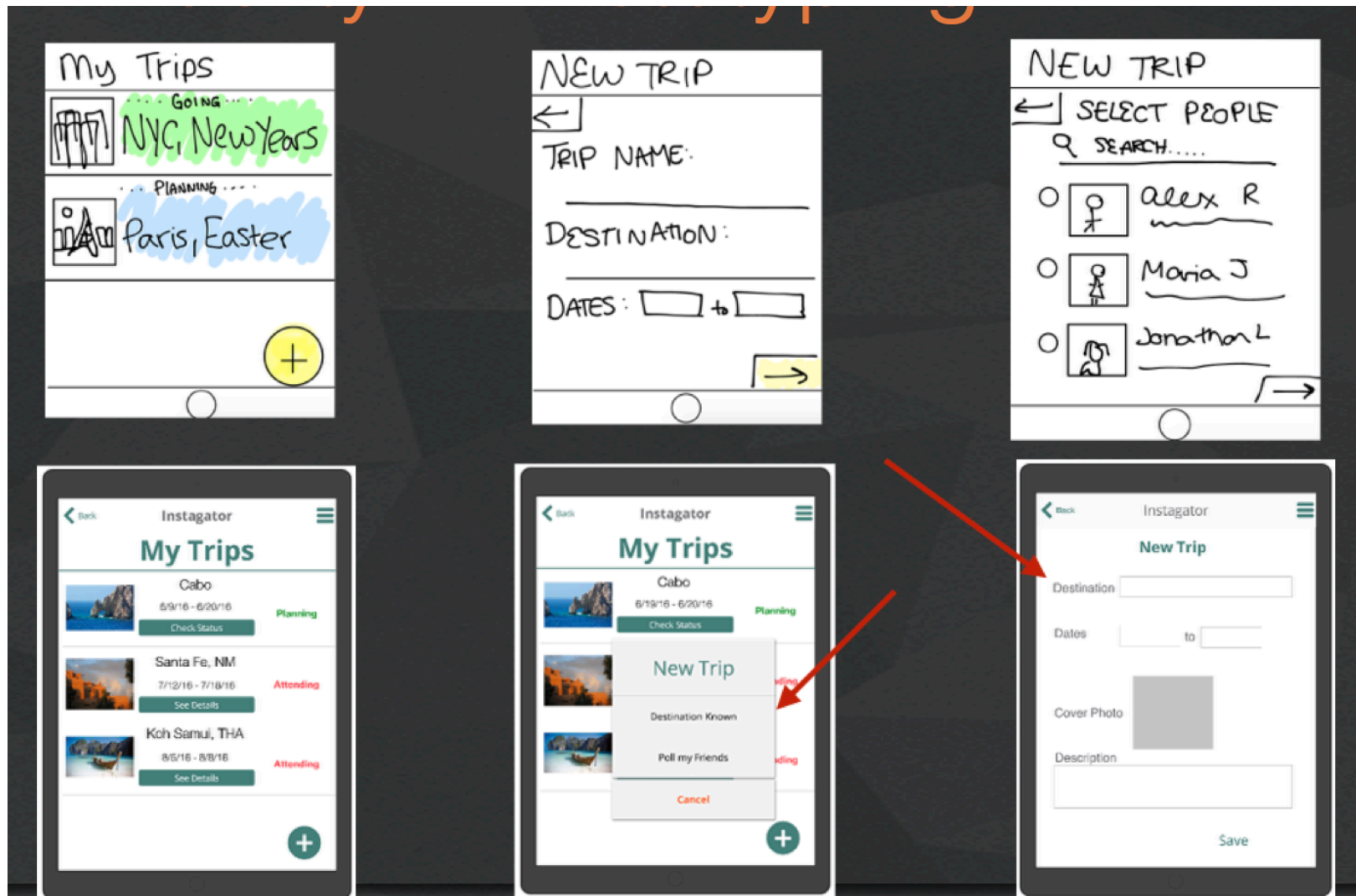


Interface #2:

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?

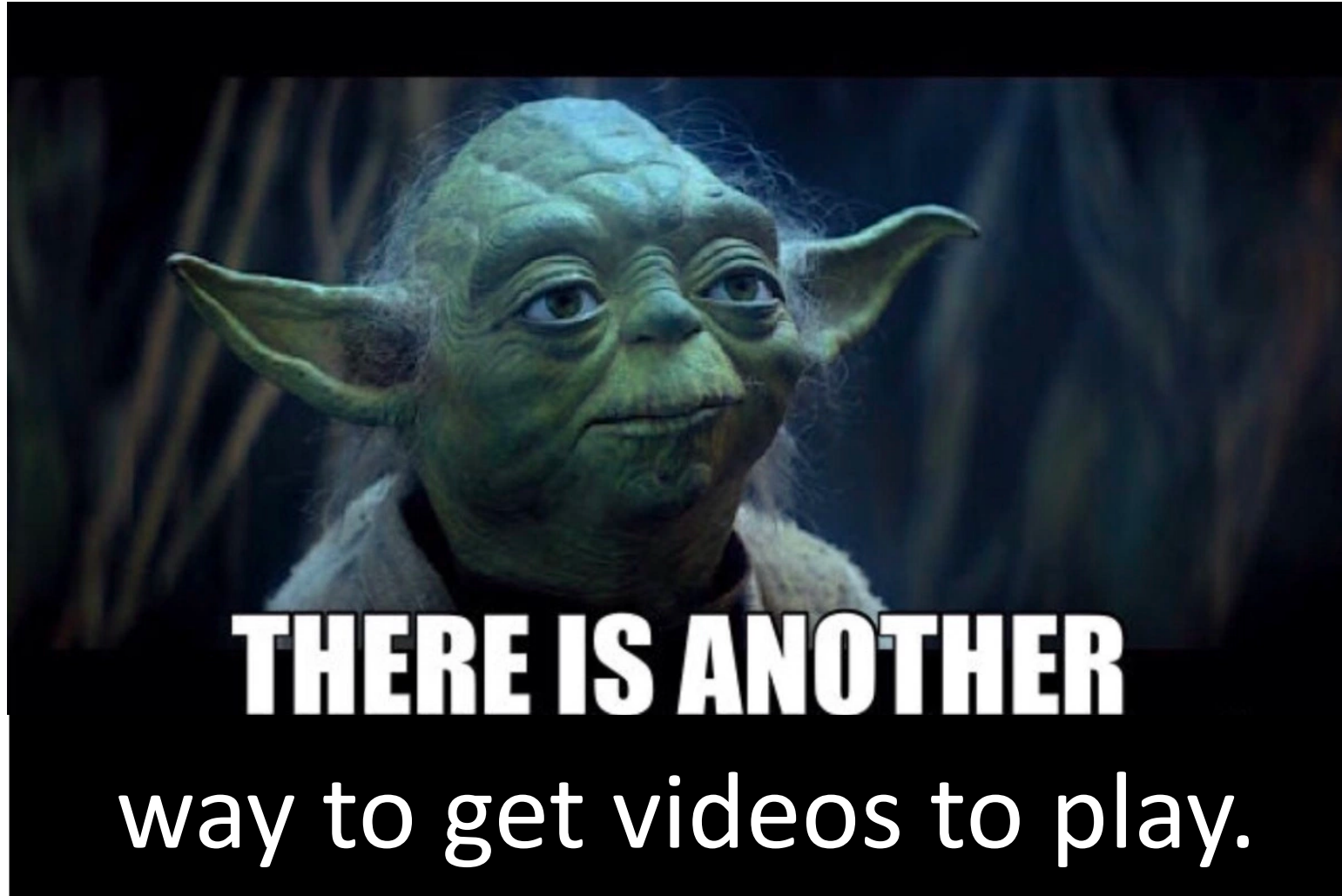
Needs more specificity:

“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...



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

What person
Uses what videos and
How they interact with it
To achieve what goal

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

What person
Uses what videos and
How they interact with it
To achieve what goal

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

What person
Uses what videos and
How they interact with it
To achieve what goal

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

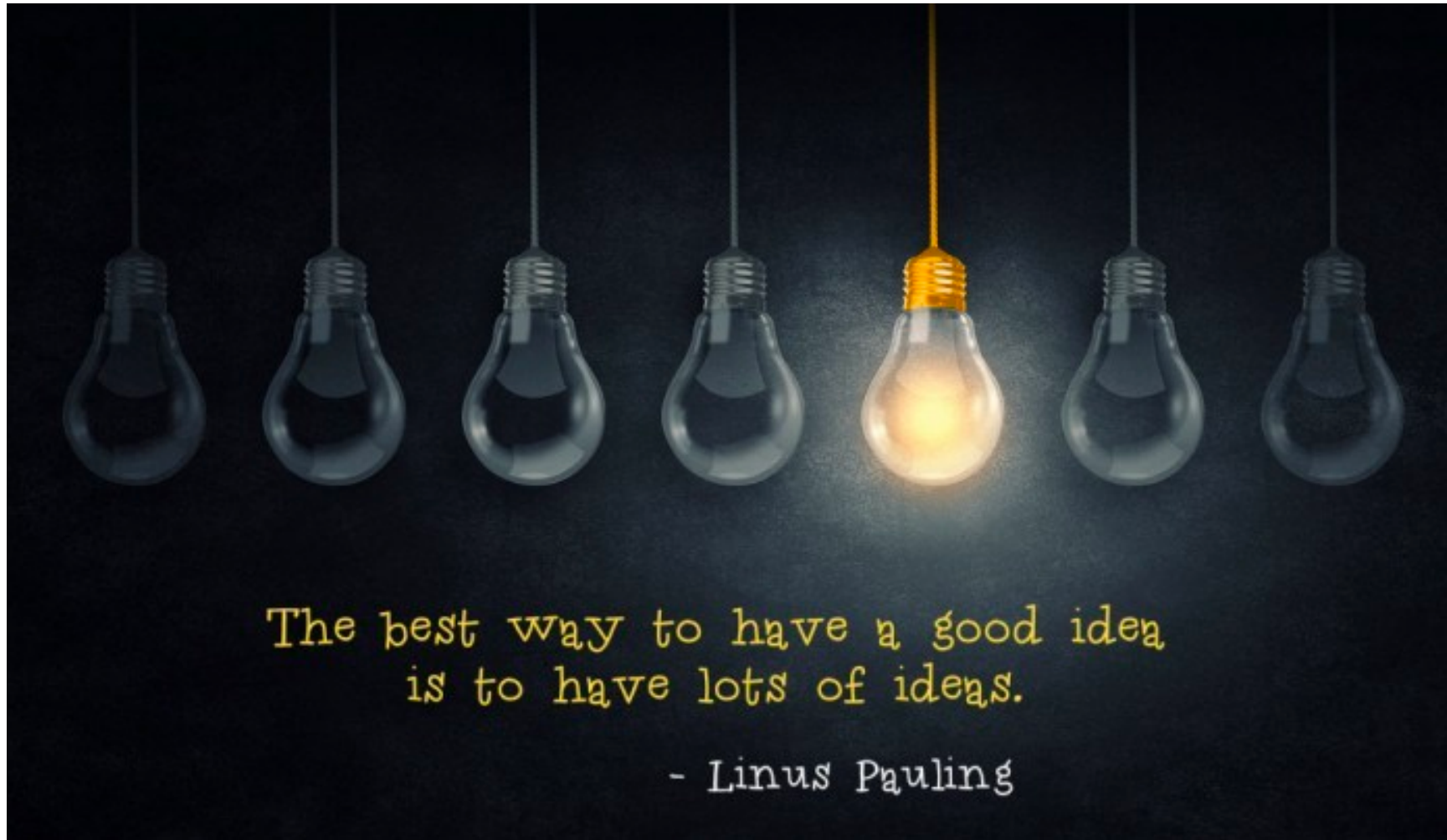
5 min

1 min

Anything helpful?

Summary

Brainstorm Ideas



How do we get from idea to execution?



Idea

Product

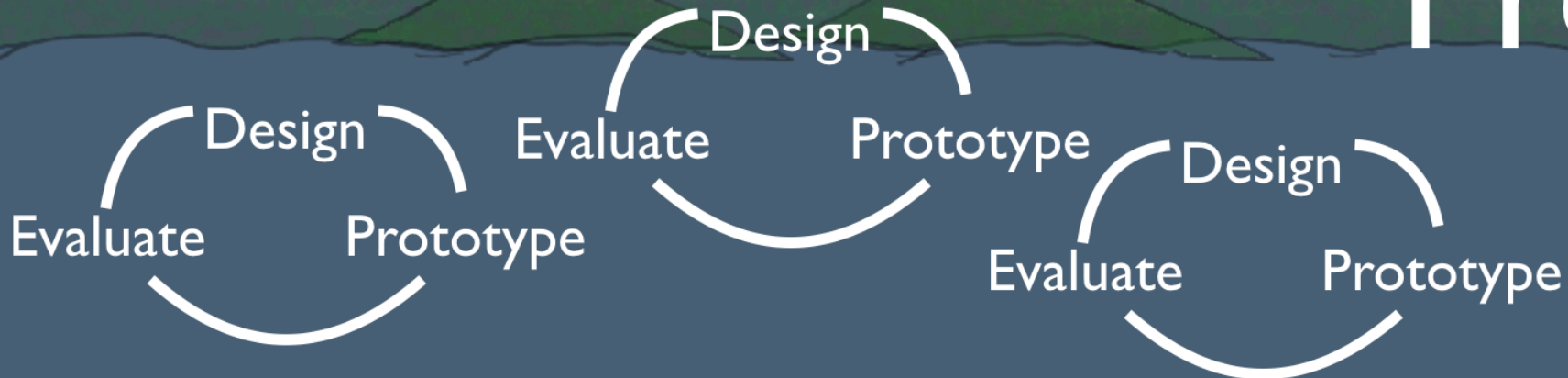
Iterative Design mitigates risk:

Every new **concept** is a risk.
Every risk needs to be **prototyped**.

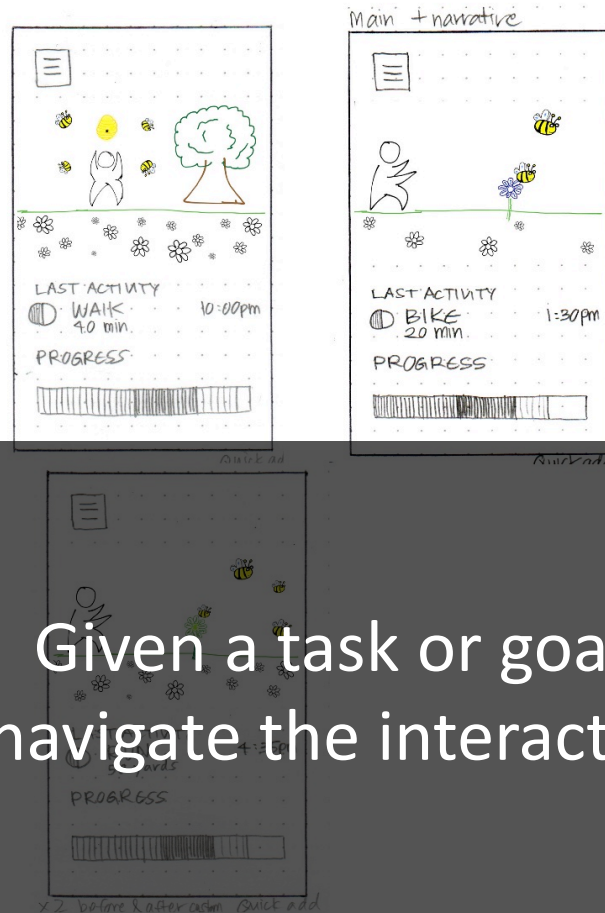


Idea

Product

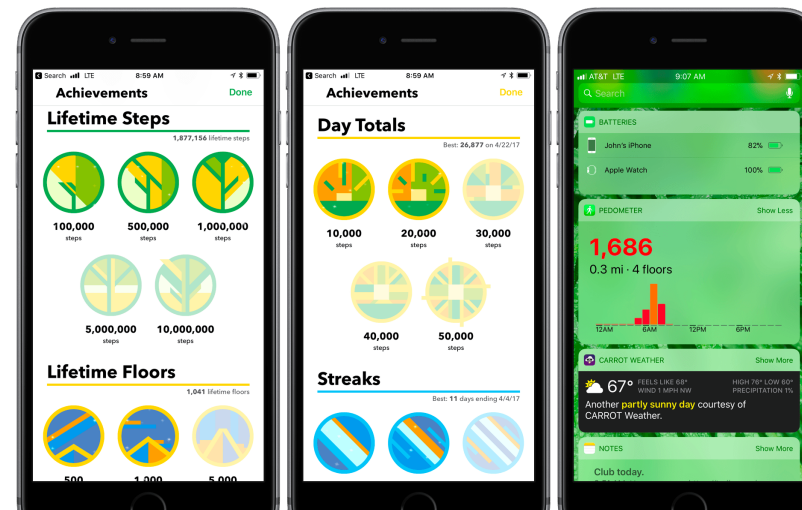
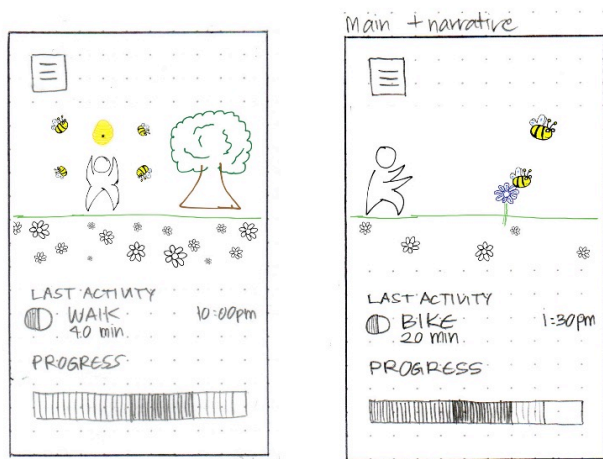
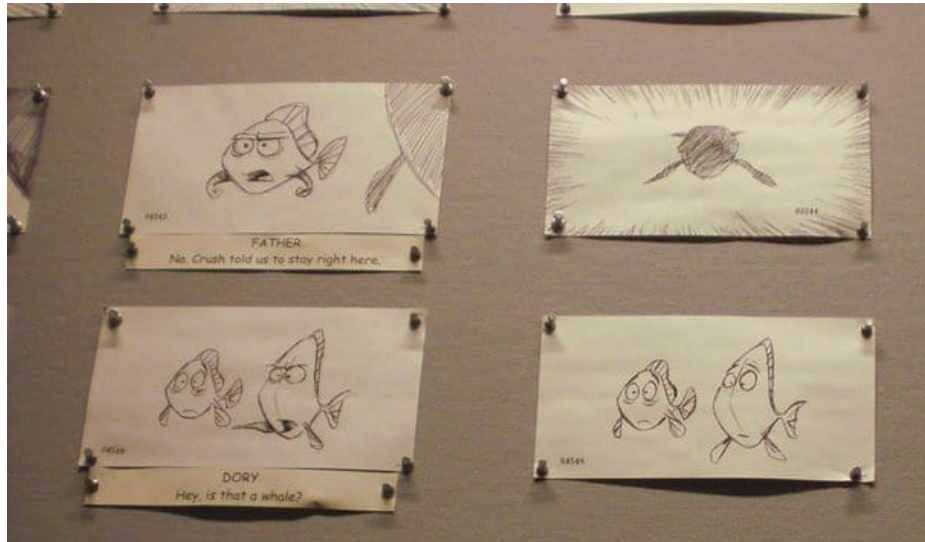


Low-Fi Prototypes mitigate risk by getting feedback on the most fundamental aspects of the design first



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