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CS377E: DESIGNING SOLUTIONS TO GLOBAL GRAND CHALLENGES

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Design Exploration Through Sketching & Experience Prototyping

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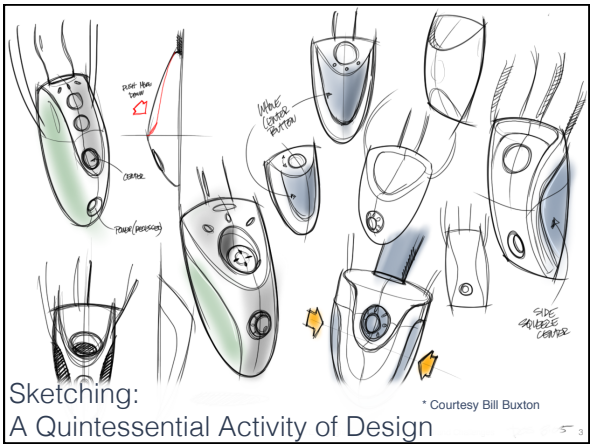
** slides marked Buxton are courtesy of Bill Buxton, from his talk "Why I Love the iPod, iPhone, Wii and Google", remix uk, 18-19 Sept. 2008, Brighton*

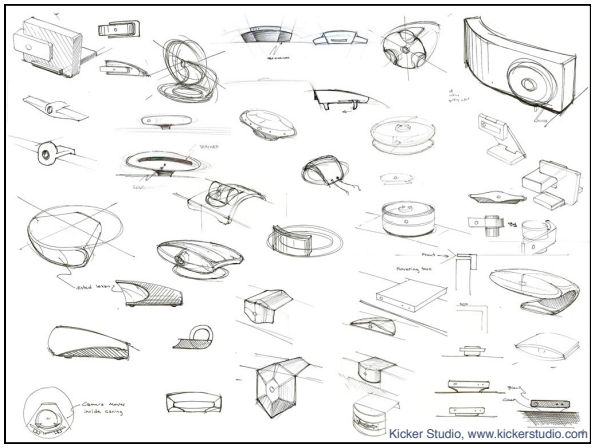
Outline

- Sketching to explore user experiences
- Experience prototyping

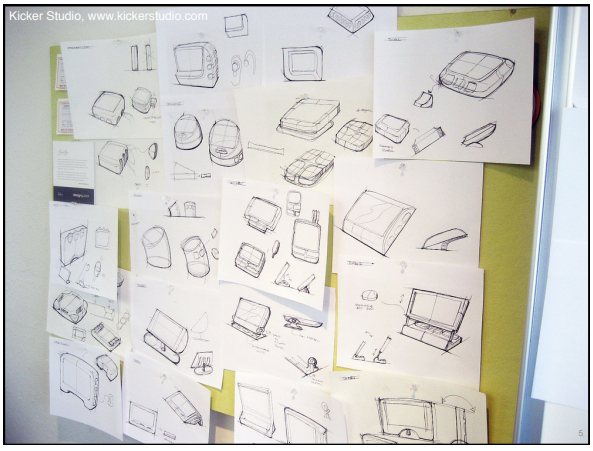


Sketching: A Quintessential Activity of Design

* Courtesy Bill Buxton



Kicker Studio, www.kickerstudio.com



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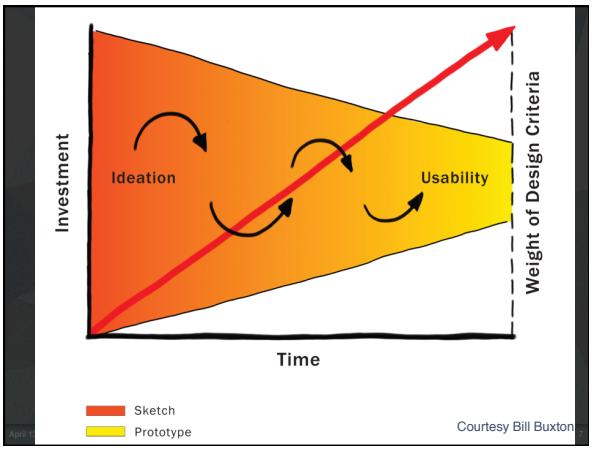
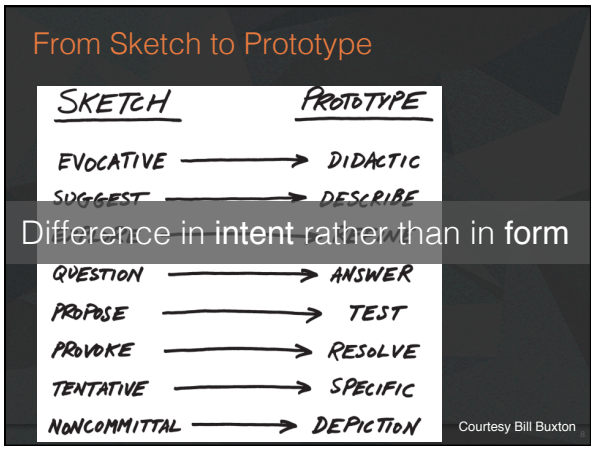
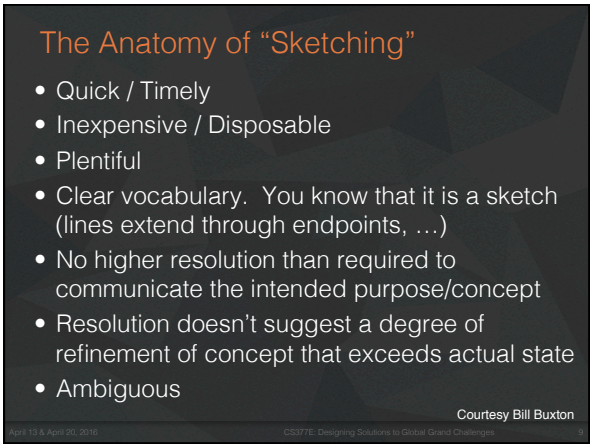
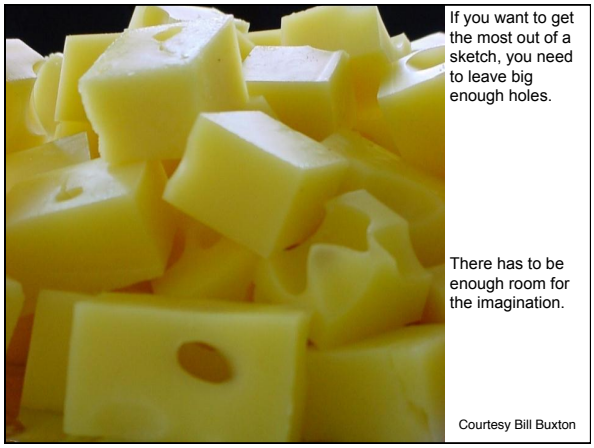
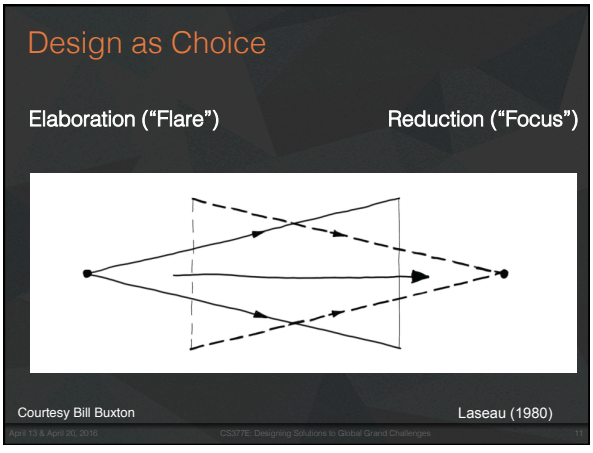
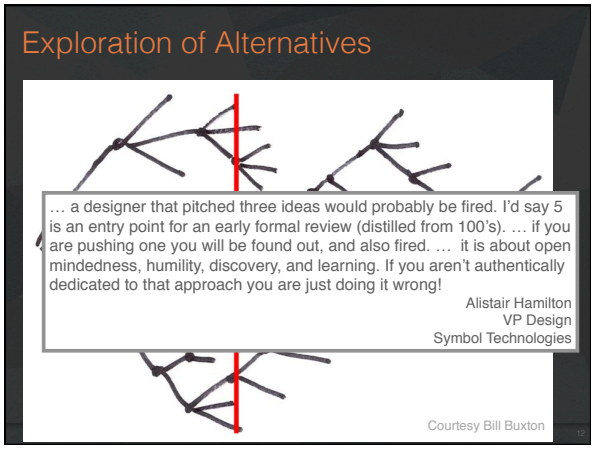

Investment
Ideation
Usability
Weight of Design Criteria
Time
Sketch
Prototype
Courtesy Bill Buxton


From Sketch to Prototype
SKETCH
PROTOTYPE
EVOCATIVE → DIDACTIC
SUGGEST → DESCRIBE
QUESTION → ANSWER
PROPOSE → TEST
PROVOKE → RESOLVE
TENTATIVE → SPECIFIC
NONCOMMITTAL → DEPICTION
Difference in intent rather than in form
Courtesy Bill Buxton

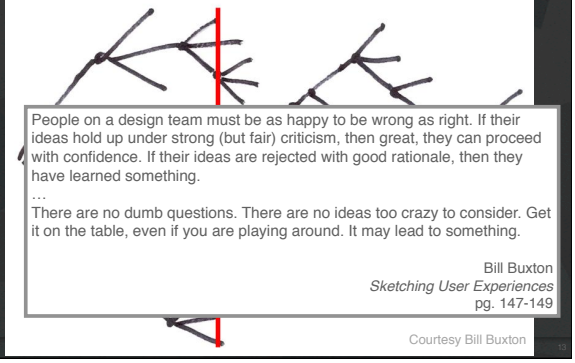

The Anatomy of "Sketching"
• Quick / Timely
• Inexpensive / Disposable
• Plentiful
• Clear vocabulary. You know that it is a sketch (lines extend through endpoints, …)
• No higher resolution than required to communicate the intended purpose/concept
• Resolution doesn't suggest a degree of refinement of concept that exceeds actual state
• Ambiguous
Courtesy Bill Buxton


If you want to get the most out of a sketch, you need to leave big enough holes.
There has to be enough room for the imagination.
Courtesy Bill Buxton


Design as Choice
Elaboration ("Flare")
Reduction ("Focus")
Courtesy Bill Buxton
Laseau (1980)


Exploration of Alternatives
… a designer that pitched three ideas would probably be fired. I'd say 5 is an entry point for an early formal review (distilled from 100's). … if you are pushing one you will be found out, and also fired. … it is about open mindedness, humility, discovery, and learning. If you aren't authentically dedicated to that approach you are just doing it wrong!
Alistair Hamilton
VP Design
Symbol Technologies
Courtesy Bill Buxton

Exploration of Alternatives



People on a design team must be as happy to be wrong as right. If their ideas hold up under strong (but fair) criticism, then great, they can proceed with confidence. If their ideas are rejected with good rationale, then they have learned something.
…
There are no dumb questions. There are no ideas too crazy to consider. Get it on the table, even if you are playing around. It may lead to something.

Bill Buxton
Sketching User Experiences
pg. 147-149

Courtesy Bill Buxton

Design

Courtesy Bill Buxton

Experience Design

Courtesy Bill Buxton

Experience vs. Interface Design

CitrusMate Plus | Mighty OJ Manual Juicer | OrangeX Manual Juicer

Experience Design

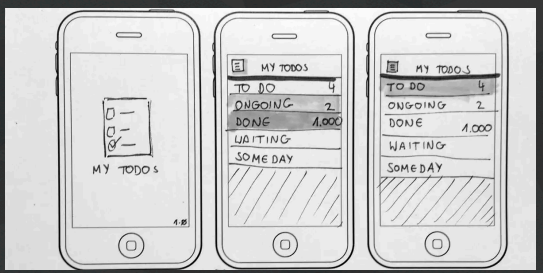
- Draw my phone
- Draw my phone's interface
- Draw the experience of using my phone
- Which is the true object of design?

http://www.listmeapp.com/

Courtesy Bill Buxton

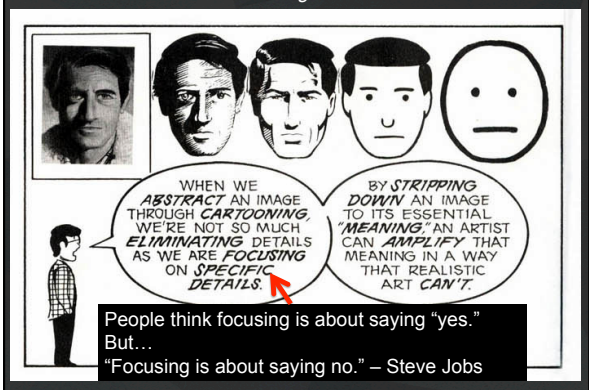
Minimal Detail

Include only what is required to render the intended purpose or concept



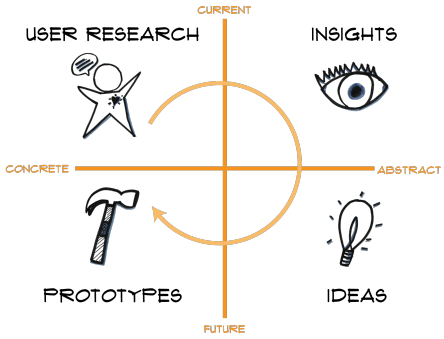
http://www.smashingmagazine.com/2013/06/sketching-for-better-mobile-experiences/

Scott McCloud's *Understanding Comics*

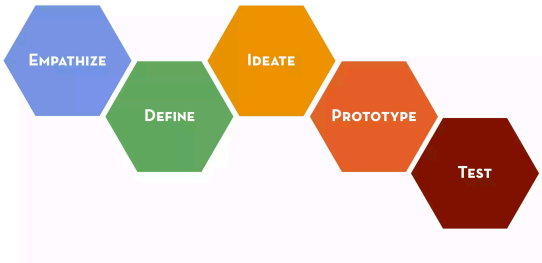


People think focusing is about saying "yes."
But…
"Focusing is about saying no." – Steve Jobs

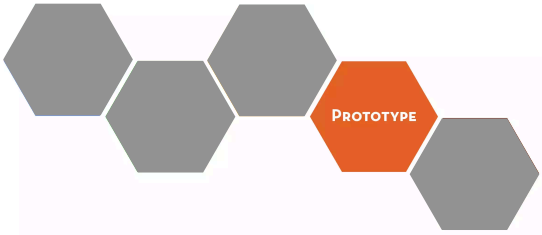
Design Thinking is Iterative



Design Thinking



Design Thinking

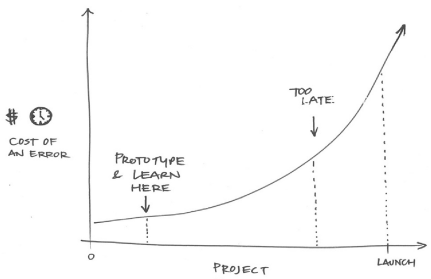


to think

PROTOTYPE

to learn

TRY THE MARSHMALLOW
TEST YOUR ASSUMPTIONS

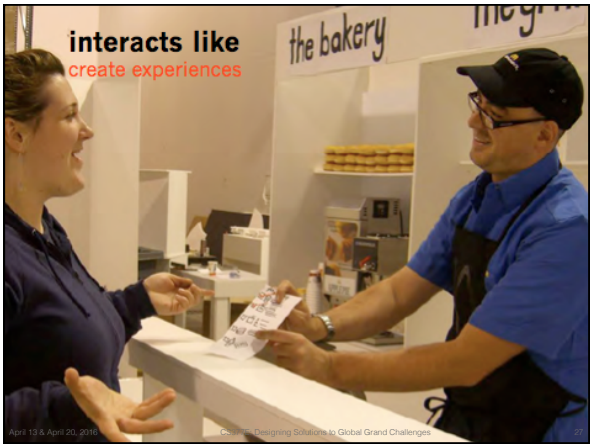


You can use an eraser on the drafting table or a sledgehammer on the construction site.

Frank Lloyd Wright

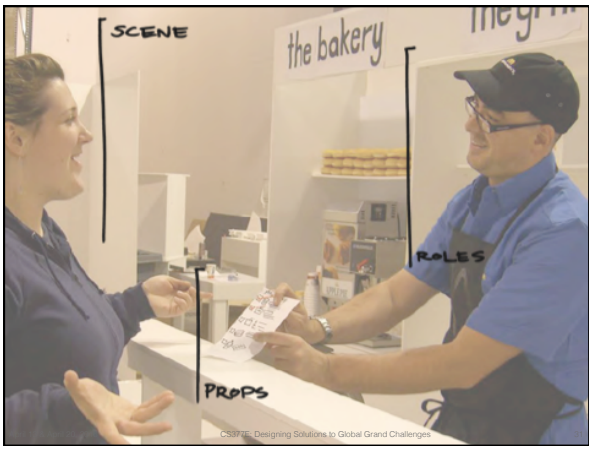
Types of Prototypes

looks like works like

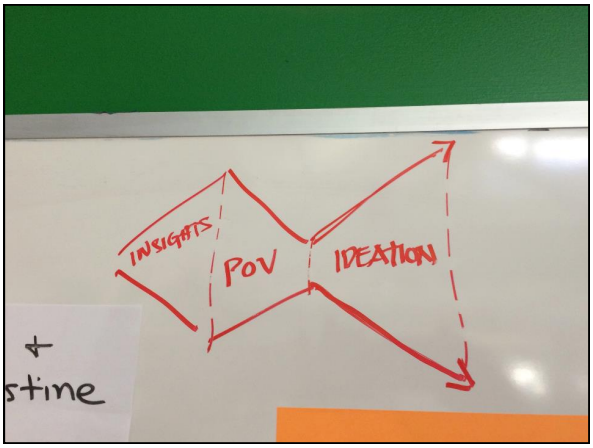


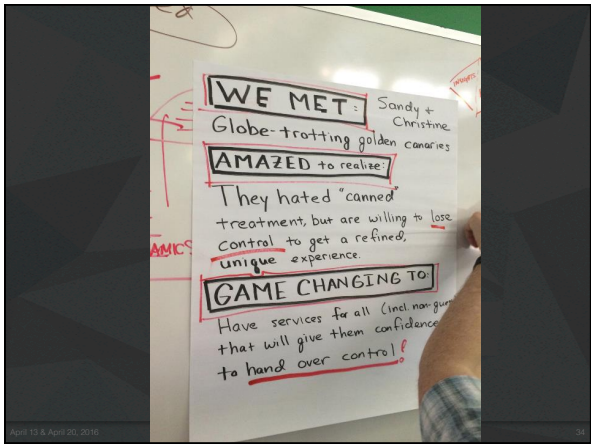
Interacts Like = Experience Prototype

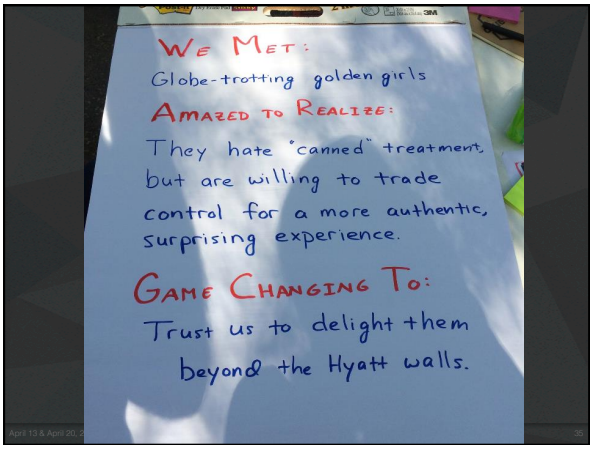
Famous Experience Prototype

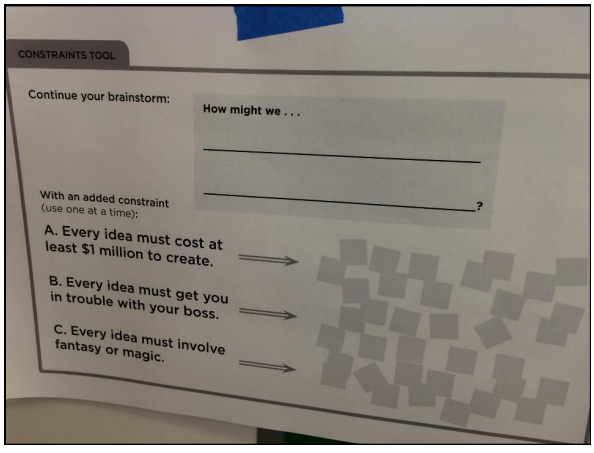

SCENE
the bakery
ROLES
PROPS

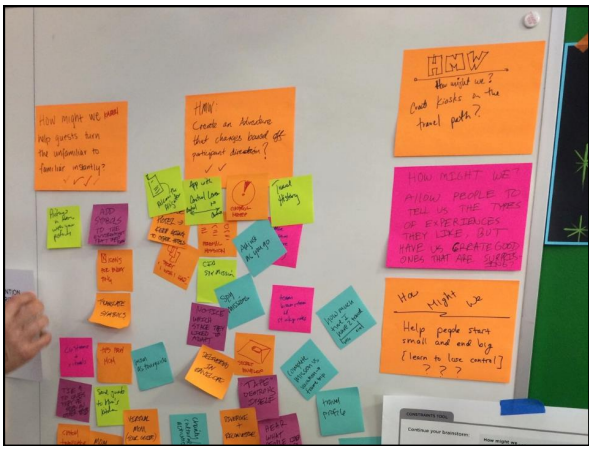
what new information do you have about the user's need?
TEST
what new information do you have about how your solution addresses the need?

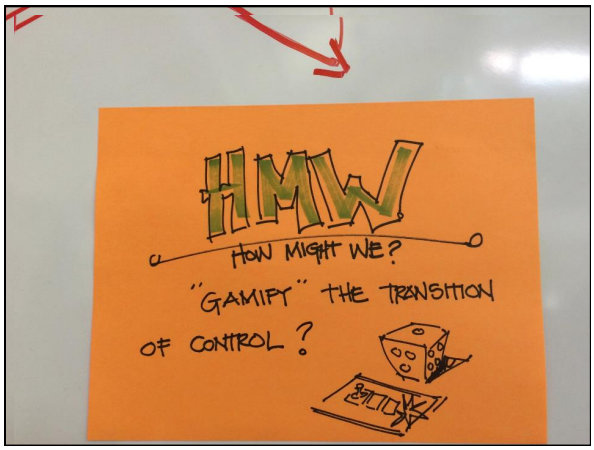

INSIGHTS
POV
IDEATION

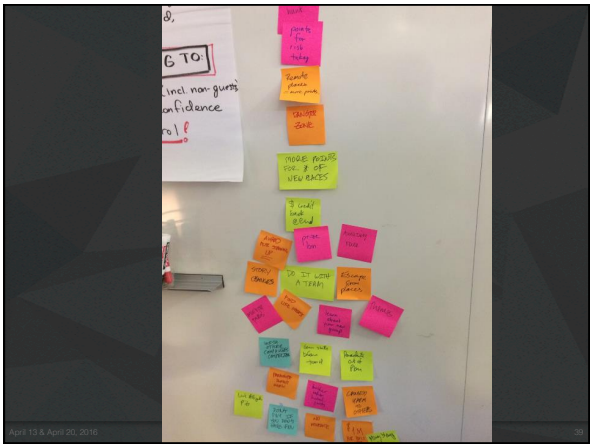

WE MET:
Sandy + Christine
Globe-trotting golden canaries
AMAZED to realize:
They hated "canned" treatment, but are willing to lose control to get a refined, unique experience.
GAME CHANGING TO:
Have services for all (incl. non-gu
that will give them confidence
to hand over control!

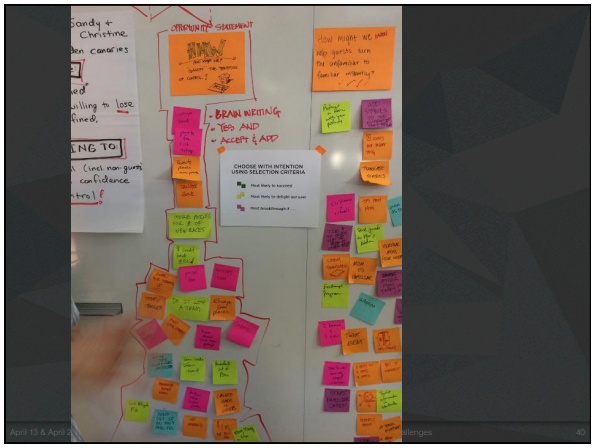

WE MET:
Globe-trotting golden girls
AMAZED TO REALIZE:
They hate "canned" treatment, but are willing to trade control for a more authentic, surprising experience.
GAME CHANGING TO:
Trust us to delight them beyond the Hyatt walls.


CONSTRAINTS TOOL
Continue your brainstorm:
How might we . . .
With an added constraint (use one at a time):
A. Every idea must cost at least $1 million to create.
B. Every idea must get you in trouble with your boss.
C. Every idea must involve fantasy or magic.

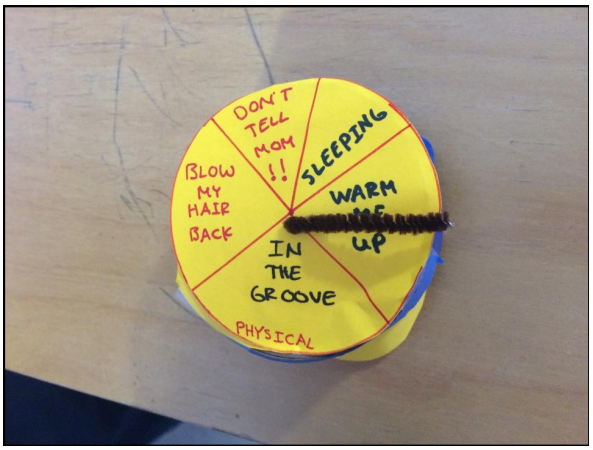

HMW
How might we?
Create kiosks on the travel path?
HOW MIGHT WE ALLOW PEOPLE TO TELL US THE TYPES OF EXPERIENCES THEY LIKE, BUT HAVE US CREATE GOOD ONES THAT ARE SURPRISES
How might we
Help people start small and end big
[learn to lose control]
???


HMW
HOW MIGHT WE?
"GAMIFY" THE TRANSITION
OF CONTROL?




BRAIN WRITING
YES AND
ACCEPT & ADD
CHOOSE WITH INTENTION
USING SELECTION CRITERIA

BRAIN WRITING
YES AND
ACCEPT & ADD
CHOOSE WITH INTENTION
USING SELECTION CRITERIA
CRAZY & FABULOUS



IMPROVISING TOOL

How to improvise to bring an experience to life

SET THE SCENE
Imagine yourselves in a specific location.
("Okay, we are at the _____ . . .)

DEFINE ROLES AND START PLAYING THEM
Just jump into what makes sense.
("I'm the _____ person and you are _____ . . .)

IMPROVISE TO DISCOVER
Build on each other's ideas and keep the scene alive.
Try out ideas by playing through them.

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SCENE-PROPS-ROLES TOOL

SCENE of the experience — how do you make where you are feel like the "real" setting/context?

PROPS in the experience — what are the rough versions of the physical things?

ROLES involved in experience — what are the roles of those "creating" the experience? who are "receiving" the experience? (save these roles for testers)

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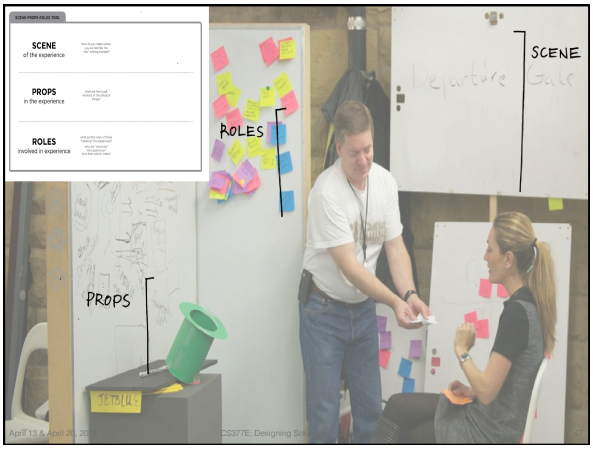

Parallel Experience Prototyping Goal

- Prototype to test an assumption
- Prototype can be a piece of idea rather than a complete solution
- Think of it as a needfinding technique

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The Hardest Part in Testing Prototypes

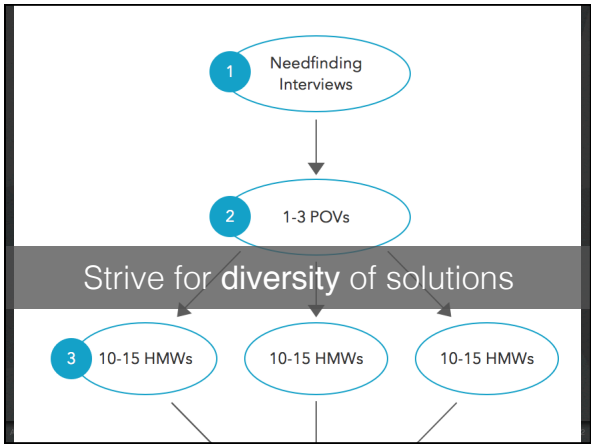
The Hardest Part in Testing Prototypes?

Recruiting Participants

Start Now for Future Assignments!

Summary

- 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
- Experience prototyping allows us to try many ideas quickly & learn more about the problem & solution space (*prototype to learn*)



Next Time

- Lecture
  - Lo-fi Prototyping
- Project (due Monday in class)
  1. Brainstorm 10-15 solutions for each of 3 top HMWs
  2. Create an experience prototype for each of top 3 solutions from across the 30-50 generated solutions
  3. Test prototypes each with at least 1 target user
  4. In presentation, show 1-3, get across what assumption you tested & what you learned!