

CS377E: ENGELBART'S UNFINISHED LEGACY: DESIGNING SOLUTIONS TO GLOBAL GRAND CHALLENGES

Design Exploration

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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
- Sketching user experiences
- Prototyping

- Working on your "How Might We" Statements
- Brainstorming Solutions

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Design Process: Discovery

Discovery

- Assess Needs
 - understand client's expectations
 - determine scope of project
 - characteristics of customers & tasks
 - evaluate existing practices & products

Design Exploration

Design Refinement

Production

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Design Process: Exploration

Discovery

Design Exploration

- Expand Design Space
 - brainstorming
 - sketching
 - storyboarding
 - prototyping

Design Refinement

Production

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Iteration

At every stage!

Design

Prototype

- Sketch
- Paper
- Video
- Tool
- Program

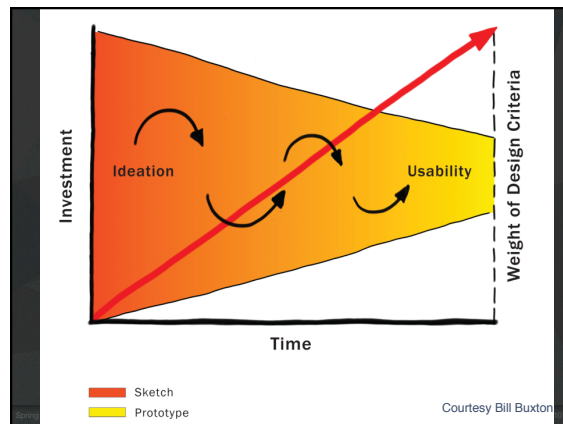
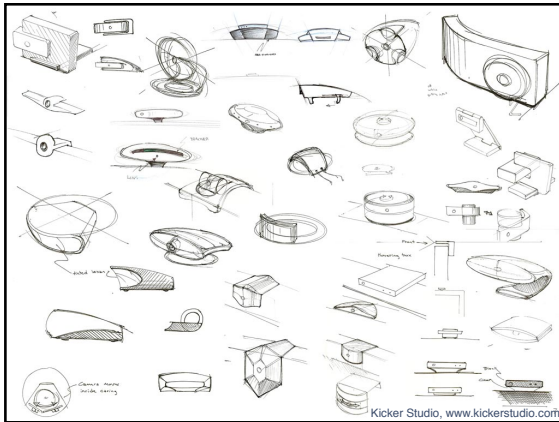
Evaluate

- Gut
- Crit
- Expert Eval
- Lo-fi Test
- User Study

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Sketching:
 A Quintessential Activity of Design

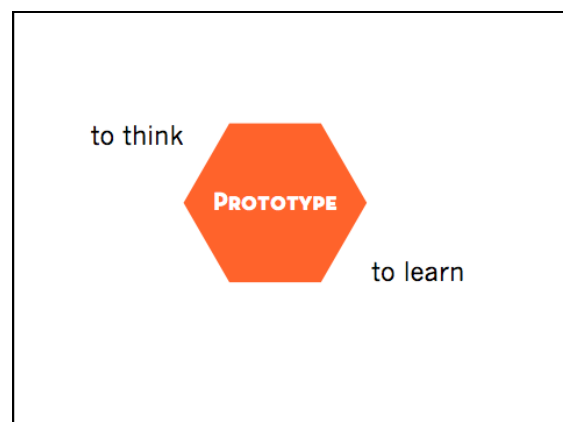
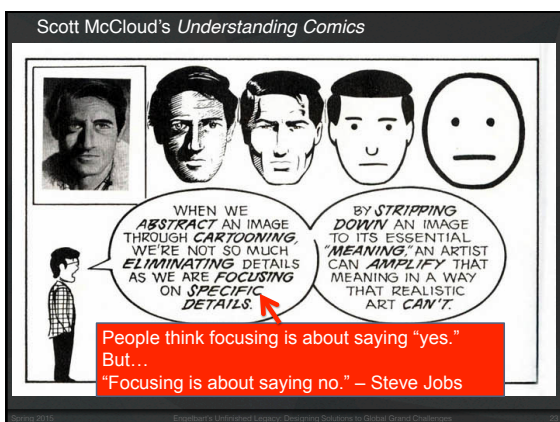
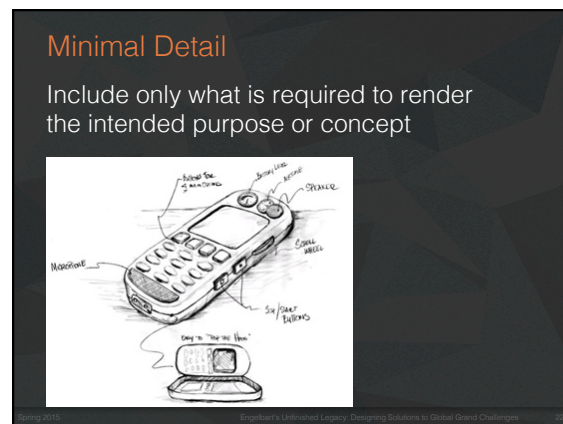
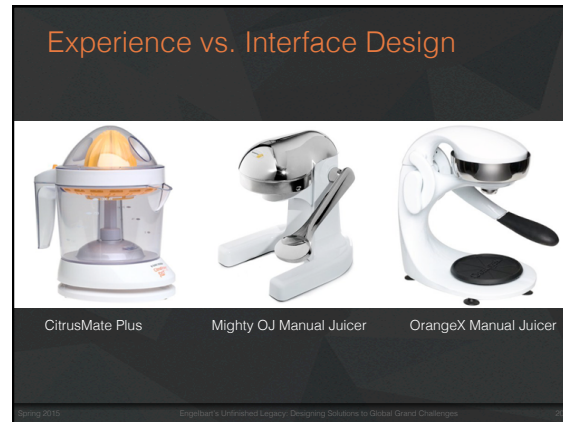
* Courtesy Bill Buxton

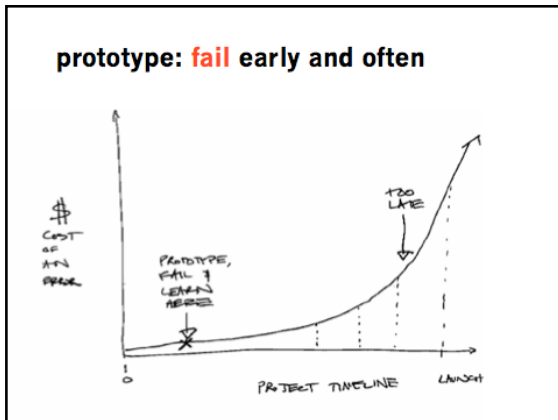


From Sketch to Prototype

<u>SKETCH</u>	<u>PROTOTYPE</u>
EVOCATIVE	DIDACTIC
SUGGEST	DESCRIBE
EXPLORE	REFINE
QUESTION	ANSWER
PROPOSE	TEST
PROVOKE	RESOLVE
TENTATIVE	SPECIFIC
NONCOMMITTAL	DEPICTION

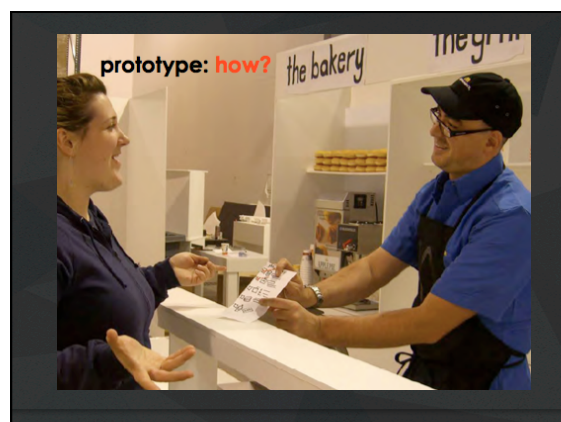
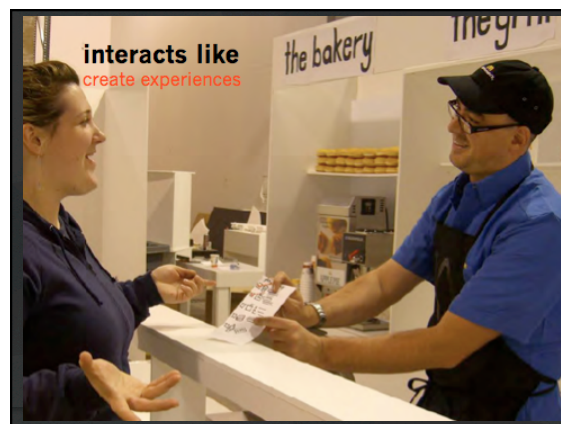
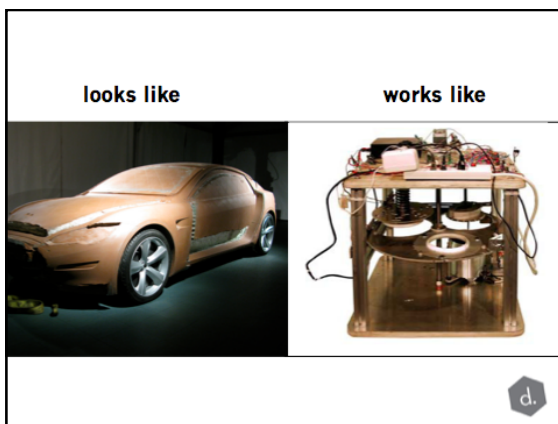
- ### The Anatomy of Sketching
- Quick / Timely
 - Inexpensive / Disposable
 - Plentiful
 - Clear vocabulary. You know that it is a sketch (lines extend through endpoints, ...)
 - No higher resolution than required to communicate the intended purpose/concept
 - Resolution doesn't suggest a degree of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

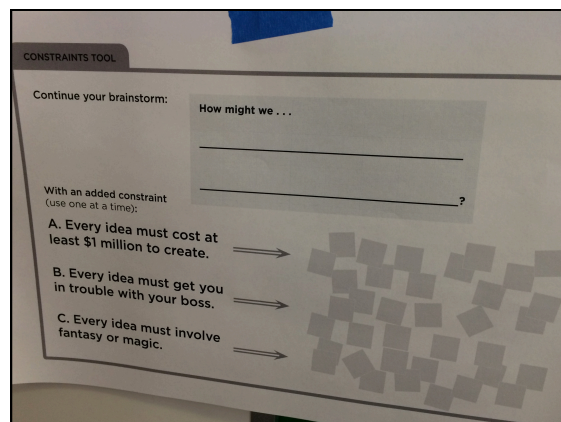
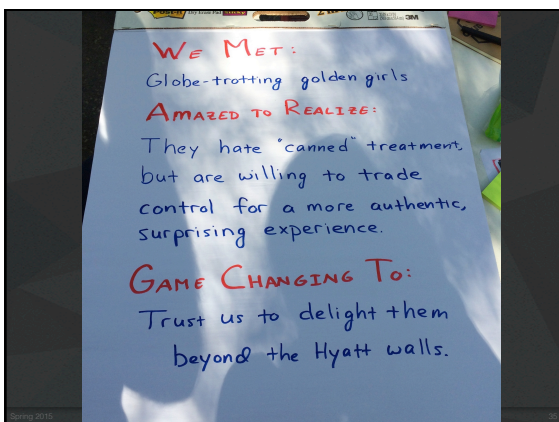
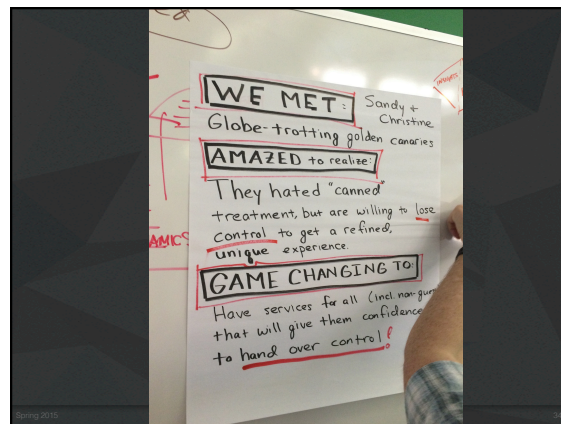
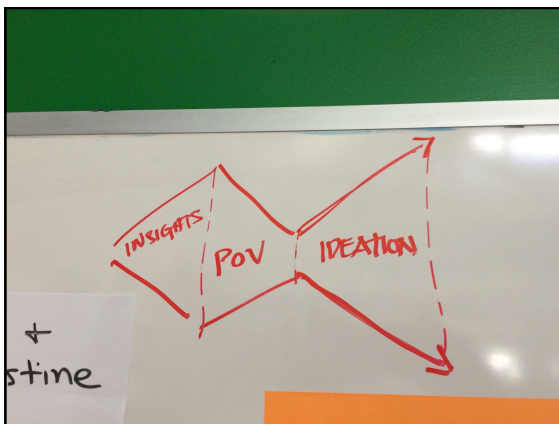
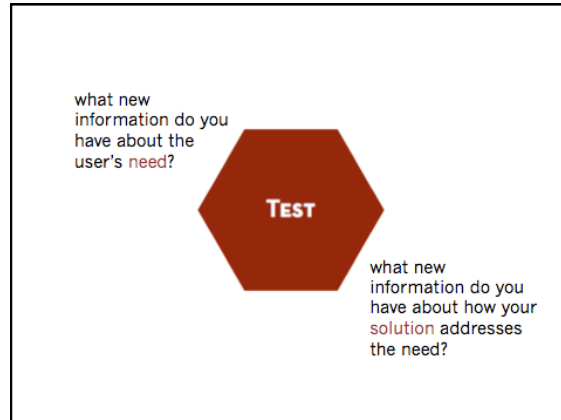


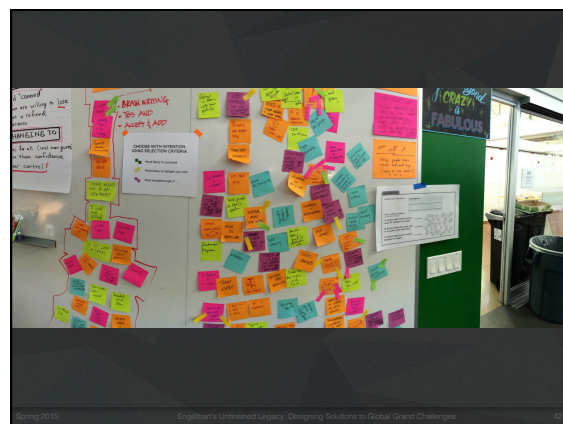
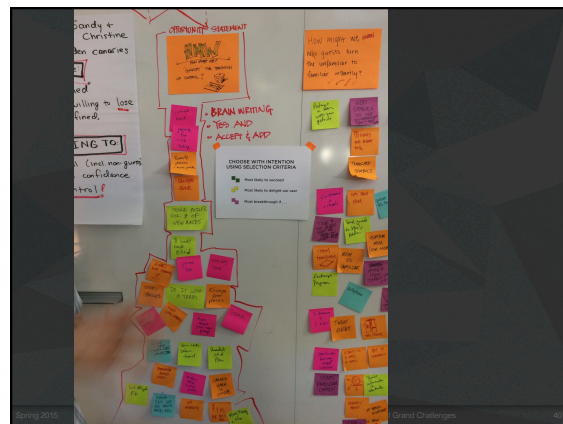
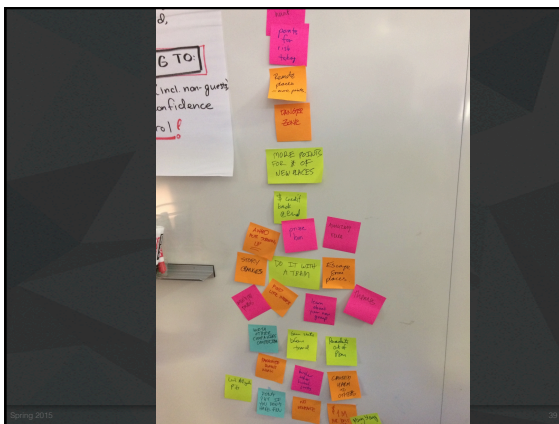
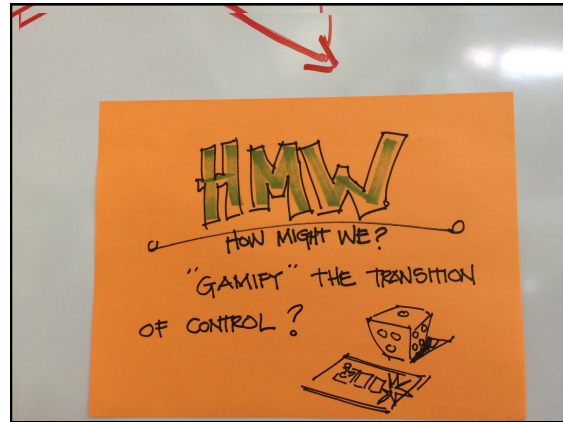
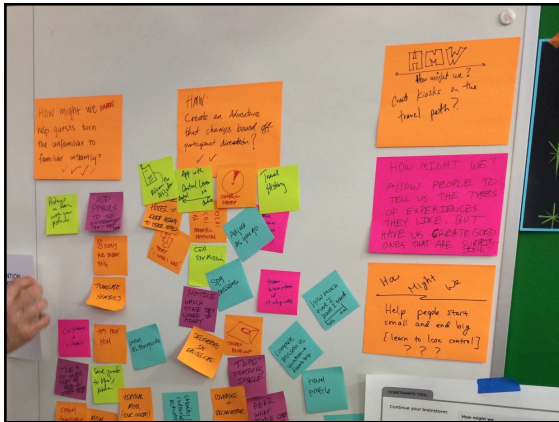


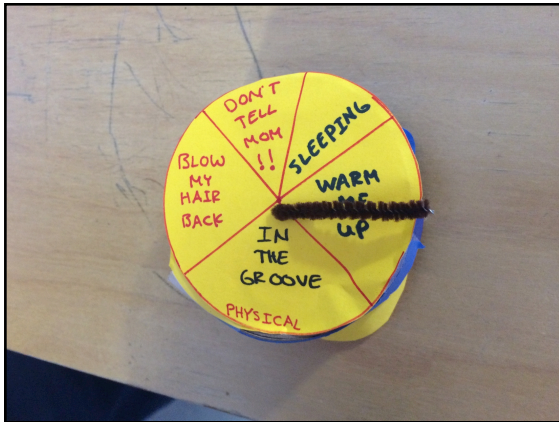
“You can use an eraser on the drafting table or a sledgehammer on the construction site.”

- Frank Lloyd Wright, architect









Parallel Prototyping Goal

- Prototype to test an assumption

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

Next Time

- Lecture
 - Lo-fi Prototyping
 - In-class Ideation Exercise