CS 160: User Interface Design

Sketching, Storyboarding & Critique  01/26/11
Due Today (Now)

Reading response
(cs160/cs160Reading)
Due Friday

Design Exercise
(on Wiki)

Programming Assignment I
(on Wiki)
Review

Design Process

1. Acceptance
2. Analysis
3. Definition
4. Ideation
5. Idea selection
6. Implementation
7. Evaluation
Topics for Today

1. Sketching & Storyboarding
2. Design Critiques
3. Brainstorming
Sketching

Lora Oehlberg, PhD candidate in ME
From B. Buxton, Sketching User Experiences
From B.Buxton, Sketching User Experiences
Critique

How to give & receive constructive criticism
What is a critique?

Show a project in progress through sketches and prototypes

Solicit feedback from peers (*small groups work best*)

History: Studio art education

http://www.flickr.com/photos/pjchmiel/2972140234/
What is the point of a critique?

Show off how great your project is.

Get honest reactions, ask for input on open questions.

Q: How is a critique different from a brainstorm?

http://www.flickr.com/photos/crustiancruz/2353909834/
Designer: Frame the discussion!

State Explicitly: What would you like comments on?
  • Overall idea?
  • Specific interactions?
  • Usability?
  • Technical Feasibility?
  • Pixel-level graphic design?

Take a dispassionate stance (this is hard!)
  • Show alternatives where possible
    (makes comparison easier)
Critic: How to avoid deaf ears

Comments are about the design, not the designer.

Point out positive aspects – be specific

Not: “I like this, but…”

Instead: “The layout effectively communicates the hierarchical nature of the data. However, …”

Ask for alternatives instead of offering solutions

Not: “You should really change X”

Instead: “Have you considered alternatives for X?”
TOM, a CS student, is on campus and wants to take a trip to SF by BART.

"I wonder when I'll have to start walking down hill to catch the train..."

So he pulls out his phone and launches the "C.T.T." app.

Using dropdown menus, he selects the downtown Berkeley BART, and 10 minutes of walk time.
Critique this storyboard in two ways:

1) Formally (i.e., how well does the storyboard itself convey the idea)

2) Content (i.e., critique the application idea itself)
Brainstorming
The Psychology of Creativity

Conformity: the enemy of creativity

Groups and organizations encourage conformity

Part of “brand” or “corporate identity”
The Psychology of Creativity

Pressure to conform affects judgment and perception:
The emperor’s new clothes
McCarthyism: if you’re not one of us, you’re one of them…

People in minority will adopt majority opinion and even manufacture their own explanation of it.
Creativity and Dissent

Authentic dissenters – people who really disagree with group – can enhance group creativity.

Their opinion needn’t be right – but they can free the group from stagnant thinking.

The originality of the minority stimulates the majority.
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Dissent and Authenticity

The benefits of dissent are weakened if

Dissent is not real: A deliberate “devil’s advocate” in the group can actually stifle dissent, because the majority know the opinion is manufactured.

Dissent is not encouraged: Polite or pro-forma acceptance is not enough.
Thinking outside the box:
Draw a series of 4 straight lines through all the points below, without lifting pen from paper:
Why Is This Hard?

We adopt expectations about the solution
Based on conventions
Based on what we believe the questioner expects
IDEO’s Brainstorming Rules

1. Sharpen the Focus
2. Playful Rules
3. Number your Ideas
4. Build and Jump
5. The Space Remembers
6. Stretch Your Mental Muscles
7. Get Physical

Aim for quantity
Hope for quality
Sharpen the Focus

Posing the right problem is critical – neither too narrow, nor too fuzzy

Not “bicycle cup-holders” but “helping cyclists to drink coffee without accidents”
Number Your Ideas

Obvious but very useful

Helps keep track of them when the brainstorm is successful (and 100 or more ideas are in play)

Allows ideas to take on an identity of their own
Build and Jump

**Build to keep momentum on an idea:**
“shock absorbers are a great idea; what are other ways to reduce coffee spillage on bumps?”

**Jump to regain momentum when a theme tapers out:**
“OK, but what about hands-free solutions?”
Premature idea rejection is a serious barrier to good design.

One big differentiator between good designers and great ones is the latter’s ability to successfully develop unusual ideas.

This requires a strong instinct to be able to distinguish fatal vs. minor flaws in an idea.
Covering whiteboards or papering walls with text is extremely useful in group work. It’s a very effective form of external (RAM) memory for group. Even better, its shared RAM. Helps group share understanding.
Stretch your Mental Muscles

**Warmups:** word games, puzzles

Get immersed in the domain: go visit the toy shop, or the bicycle shop, phone shop etc…

Bring some examples of the technology to the brainstorm
Get Visual & Physical

Sketch
Make models
Act out

Moggridge, Designing Interactions, p.732
Next Time

Group Brainstorm
*meet in 306 Soda, then walk to Woz*

Reading:
The Perfect Brainstorm, Tom Kelley.
Visual Storytelling, Bill Buxton.
Read, then write a comment on Piazzza