Interpretation

MANEESH AGRAWALA AND MICHAEL BERNSTEIN

cs247.stanford.edu
Rapid capture

Thirty seconds to sketch an interface
John

Here's to the crazy ones

35 Photos
Rapid capture: part II

Sixty seconds to sketch an interface
Dnipro, Ukraine

MORNING
-1°
Sunny
Wind: E 7 mph
Humidity: 91%

DAY
+3°

EVENING
0°

NIGHT
-2°
Class goals and logistics

Because it wouldn’t be the second day of class without them.
What is this course about?

- Studio learning and critique
- Visual communication using both bits and atoms
- Rapid ideation and prototyping
- Advanced domains for HCl: ubiquitous computing, social computing, digital art, visualization and more
Design studio

- Popularized by the École des Beaux-Arts in France in the 1800’s
- Learning-by-doing with expert critique
The structure of studio

- Studio periods forms the centerpiece of the class.
- You will share, critique, and be critiqued each week as part of your project deliverables.
- **Design critique**: focused feedback to guide your ideation and prototyping process
  - More on this soon
  - This isn’t routine feedback: it’s guidance intended to push you
  - Ignore critique at your peril
Our project rhythm

• Assignments will be due by the start of class (1:30pm)

• Some assignments graded formatively…
  • Points for completing the requirements of the assignment
  • Typically worth fewer points
  • √-, √, √+ feedback to guide your progress
  • Can be redone and resubmitted at the next studio for additional feedback.
Our project rhythm

• Assignments will be due by the start of class (1:30pm)

• Other assignments graded summatively…
  • Traditional rubric-based, graded feedback
  • Worth many more points

• Goal: use the formative assignments to get our advice and feedback in a safe space, so that you can maximize your performance on the summative assignments.
Our project rhythm

- Example:
  - Project 1, Part I: *formative*, observe and sketch. Due this Wednesday, feedback in class.

- Project 1, Part II: *summative*, (go re-observe if necessary), interpret and produce needs. Due next Monday.
Three projects

• P1: needfinding and visual communication
• P2: visual design for the web
• P3: class project
Grading

- Heavily project-based (90%):
  - Project 1: 10%
  - Project 2: 20%
  - Project 3: 60%

- Participation (10%):
  - 5% for studio participation
  - 5% for team participation
Attendance

- This class is a studio, where a lot of the learning happens in class through a mixture of lecture, activity, and project work.

- For this to work, attendance is mandatory.

- There are two pre-excused absences allowed — post on Piazza in advance.
Prerequisites

- We expect that you have background in design thinking fundamentals (e.g., CS 147) and web programming ability (e.g., CS 142).

- If you are from a department other than CS, SymSys, and MS&E, let’s talk. We want a diverse classroom.
Materials

- Buy a sketchbook and thick pen.
- Make sure you can easily tear out pages.
- This is required as part of P1. Get it yesteday, use it today. Bring it to every class.

- Stanford Bookstore,
  Amazon Student Prime,
  art store on California Ave
Introductions

Did you know: the university officially calls them CAs?
Maneesh Agrawala

- Professor, Computer Science
- Director, Brown Institute for Media Innovation
- HCI / Graphics / Visualization
Michael Bernstein

- Assistant Professor, Computer Science
- Member of the Stanford HCI Group
Ishita Prasad

Elaine Zhou
Questions?

Ans: 42
Needfinding
Interpretation
In even more desperate search of ourselves
Needs are verbs, not nouns

- Nouns assume the solution: “She needs a ladder.”
- Verbs open up many possible solutions: “She needs to grab all her items before leaving.”
Observation vs. Interpretation

- A common error is to mix up what you see with what you interpret
- Start with what you see:
  - What’s the environment or activity that’s framing this behavior?
  - What’s out of frame that might be important?
- Capture details! You’ll need them later

- Then interpret, why are you seeing what you see?
Interpretation

- Ask yourself *why* you think something happened
- Suggest a reason
- Ask yourself why that reason exists and matters
- Recurse…
- Aim to produce needs
Once more, with feeling

Create groups of three
What are needs suggested in the next slide’s picture?
Four minutes
Share with another group

Three minutes
How might we...?
“How might we...?” questions

- Turn large needs into actionable charges
  - e.g., “How might we make CS 247 feel more like trusted, safe spaces?”
- A useful way to ground a brainstorm
The Goldilocks of How Might We

A good “How Might We…” question is:

- Not so broad that it is inapproachable
  How might we help people organize all their digital media?

- Not so narrow that it suggests a solution
  How might we help people retrieve their favorite digital media with just a click?

- In a happy middle ground:
  How might we help weekend extreme sports enthusiasts organize their digital media?
How might we...

Groups of three
Three minutes
Project 1, part two

- Synthesize your needfinding observations into interpretations and “How might we...?” questions
  - Back up each interpretation and “How Might We...?” with an observation, quote or picture

- Submit a PDF of mixed sketches and text

- 8pt summative grade