

STANFORD HCI GROUP / CS247

Human-Computer Interaction
Design Studio

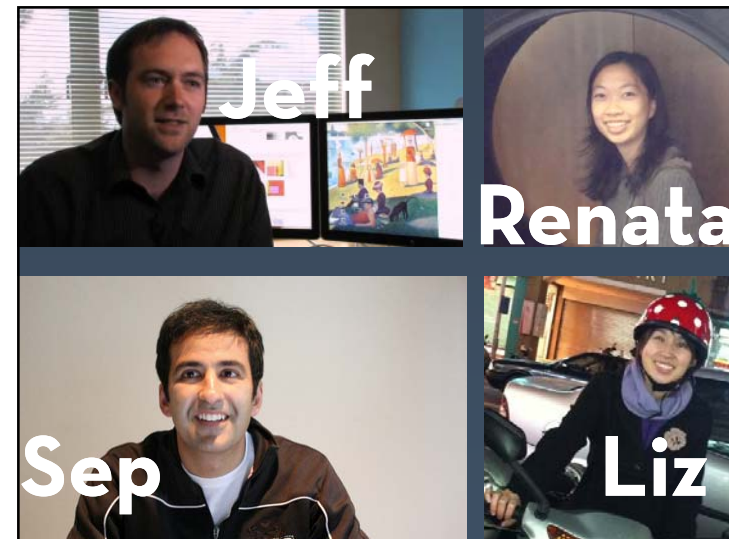
4 January 2011

<http://cs247.stanford.edu>



Introductions
Course Goals
Course Structure
P1: Thoughtless Acts
Idea Logs

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... and you!

Introductions

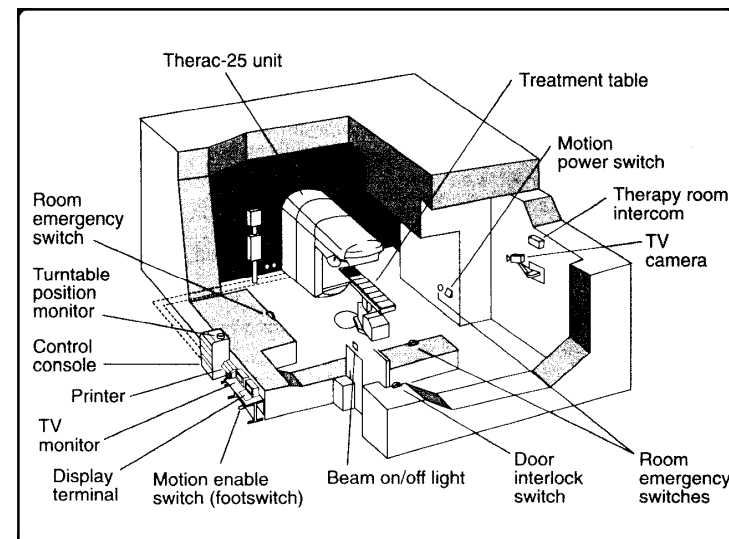
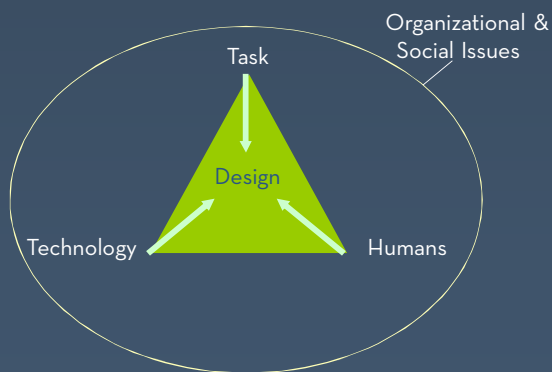
Course Goals

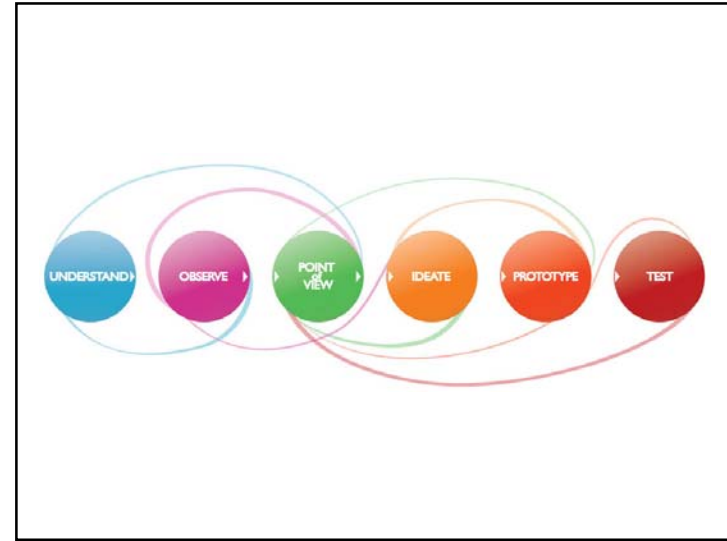
Course Structure

P1: Thoughtless Acts

Idea Logs

What is HCI?





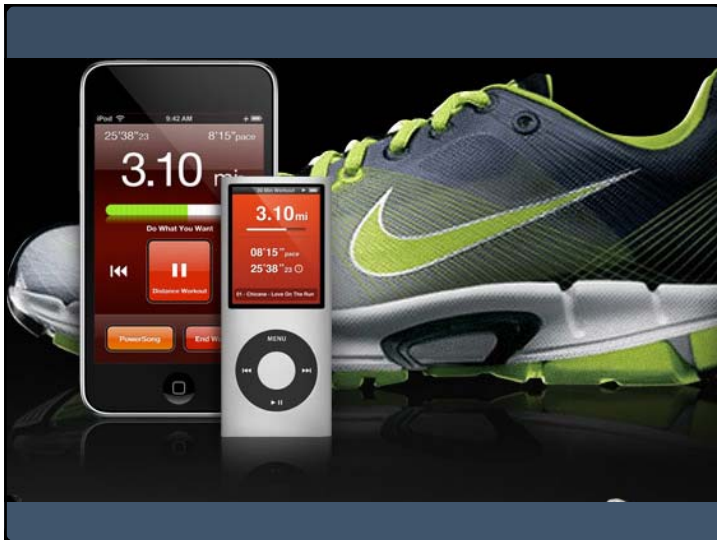
Stanford HCI Curriculum

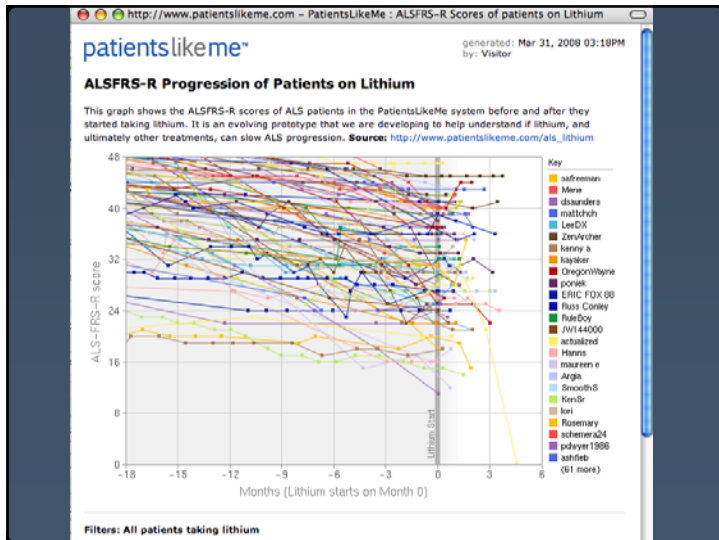
- 147** Introduction to HCI
Learn the fundamentals of HCI
- 247** Interaction Design Studio
Intensive, hands-on HCI design practice
- 376** Research Topics in HCI
Learn HCI research landscape & frontier
- 448B** Data Visualization, **294H** Social Software
In-depth study of specific HCI topics

Course Goals

- Deepen the design cycle from CS147**
- Design novel information interfaces
- More strategies for creativity
- Intensive sketching
- Rapid design iterations
- Reflective design process
- Learn by doing!**

Lifelogging:
mobile and online
sensing for private
and/or public good.





What information streams
 could be usefully sensed?

What application domains
 are most compelling?

What pitfalls lie in wait?

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Class Sessions

Studio and critique

Show and tell

Lectures

Guest speakers

In-class exercises / sharing

Lab Sections (1-unit, optional)

Wed 6-8pm in 120 Wallenberg

Will cover skills & technologies useful in class:

- Sketching
- Mobile application development
- Web application development
- Working with large data sets
- Data visualization
- Student-driven topics

Expected Background

In general, there are no pre-requisites.

However, we do assume:

- Familiarity with HCI fundamentals (~CS147)
 - Need-finding, prototyping, evaluation
- Substantial programming ability (~CS107)
 - Comfort learning and working with new languages, platforms, and APIs
 - Android (for mobile) and AppEngine/Django (for web) are “officially” supported
 - BUT you are free to deviate (e.g., iPhone)

Assignments

P1 Individual observation exercise – 2 days

P2 Interviews & brainstorming – 1 week

P3 Mobile ambient display – 1 week

P4 Course project: Lifelogging – 8 weeks

Critique in studio sessions

Connection to schools for user interaction

Coaches from industry

Multiple testing cycles

Final presentation fair during finals week

Individual **Idea Logs**

Grading

- P1** Thoughtless Acts (*individual*) 5%
- P2** Interviews & brainstorming (*groups*) 10%
- P3** Mobile ambient display (*pairs*) 15%
- P4** Course project: Lifelogging (*groups*) 40%
- Idea Logs** 25%
- Participation** 5%

But isn't design work inherently subjective?
We provide rubrics for each assignment to help.

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Thoughtless Acts

"... notice the subtle and amusing ways that people react to the world around them. These 'thoughtless acts' reveal how people behave in a world not always perfectly tailored to their needs and demonstrate the kind of real-world observational approach that can inspire designers..."

Jane Fulton Suri
IDEO



P1: Thoughtless Acts

The goals of this project are to:

- Become more sensitive to how people interact with the designed environment
- Recognize underlying needs that lead to improvisational behaviors
- Discovering design opportunities
- Use sketching to highlight an observation
- Make a strong start in your Idea Log.

P1: Thoughtless Acts (due Thurs)

Look around you for potential situations of design improvisation.

Choose a situation that you find most interesting in revealing people's unmet needs.

Take a photo that captures your example.

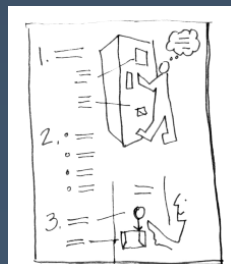
Draw a sketch that captures the essentials.

P1: Thoughtless Acts (due Thurs)

Prepare an 11" x 17" poster including:

Your photo, sketch (with annotations as useful), a short description, and design opportunities.

Come to class prepared to display and discuss your poster. Use simple sketches and bold lettering; it should be easy to read from 4-6 feet away.



(NOT) SMART MOTION SENSORS
By Clara Shih

1. SITUATION/INTERACTION
STERN DINING HALL'S Juice Dispenser

2. TASK GOAL
Student wants a cup of juice

3. FACTORS

- dining hall cups are the same size
- machine can't accommodate big cup
- button behavior is inconsistent
- buttons are deceiving, confusing
- different conceptual models

4. IMPROVEMENTS

- fewer buttons
- automatic start/stop buttons (color-coded)
- weight-sensitive sensors
- use words instead of pictures

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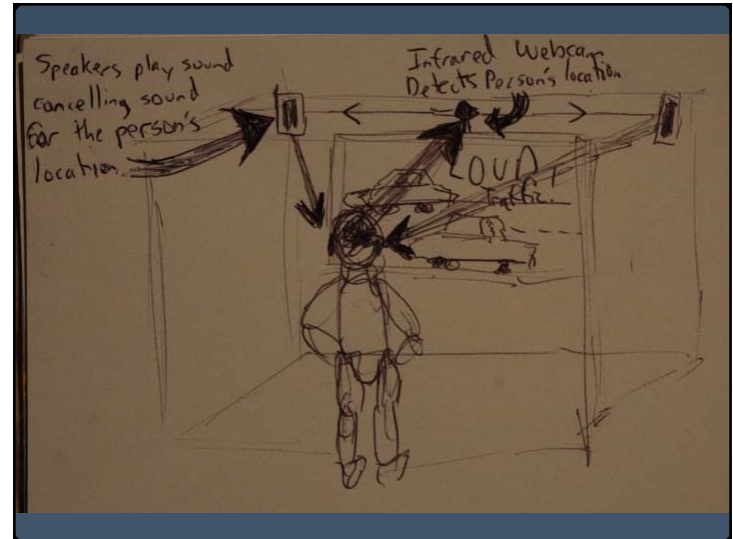
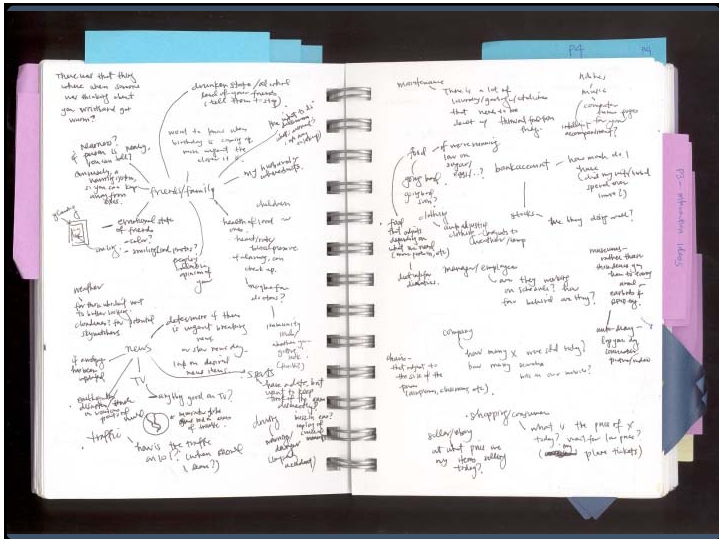
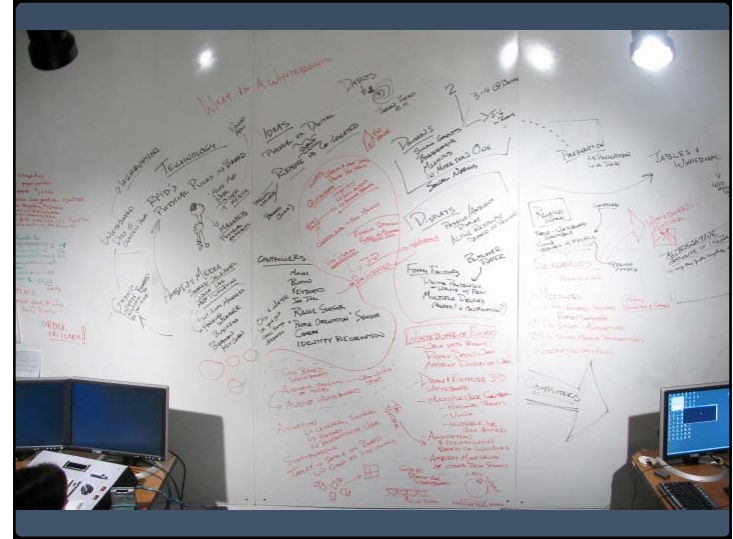
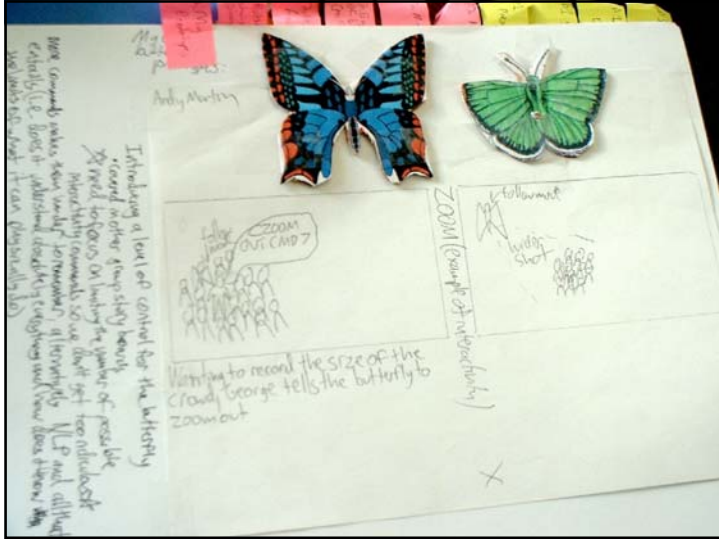
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Next Steps

Enrollment

We will review course applications and send enrollment updates by Wednesday morning.

Lab Section Wed 6-8pm (recommended!)

Sketching with Bill Verplank. Buy a sketch book (idea log) ahead of time and bring it!

Thursday

Idea logs and P1 posters for sharing and review.

Questions?



cs247@cs.stanford.edu

On HCI track,
Love interaction design,
And want to learn more

**technically brilliant
apps do not always make a
good experience**

**to design for people
one must do it discretely,
learn from experience.**

**Me, you, a Kinect
Hacking for social goodness
Interactive web!**

**Facebook makes me cringe
Usability Nightmare
Can't find anything**

**security pros
do need hci knowledge!
else browsers will suck**

**Let me in this class
I'm a better programmer
Than I'm a poet**

**What other classes
in the department can call
themselves 'studios'?**

**Expand horizons
Connecting interests, passion
Learning from the best**

Need finding is great
Prototyping is better
Jeff Heer for the win

c s is the best
h c i until I die
pick me or i'll cry

Haikus are easy
but sometimes they don't make sense
refrigerator.

I write bad haikus
but this class looks really cool
refrigerator

Haikus are poor ports
All syntax and no substance
Refrigerator

Wesley wants to learn
design skills and build startups
hippopotamus

```
if (take==True):  
    HCI_knowledge.update()  
    return graduate
```

interaction de
sign requires practice brea
king rules (and learning)