CSCI 3002: Foundations of Human-Computer Interaction

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University of Colorado Boulder
Fall 2018

Today

- About the course
- Course policies
- Introductions
- Mini-design activity
- For next time

About the course

The big idea

The purpose of this course is to learn about, explore, and practice methods for conducting user-centered research, design, and user evaluation. You will learn about user-centered design practices by actually doing them, reflecting on how things went, and (in most cases) practicing them several more times. You will learn about a variety of techniques for working with users, and will apply them in the context of real-world design projects.

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What we will do

- Focus on learning about and practicing methods for conducting user-centered research and design
  - Brainstorming
  - User research
  - Sketching and prototyping
  - User testing and analysis
- Mostly about skills rather than about facts

Key skills

1. Recognize and apply known rules of design and human-computer interaction to existing artifacts
2. Create sketches, prototypes, video artifacts to explore potential design ideas and collect feedback
3. Gather data about end users through observation, interviews, and user tests, and to transform what you've learned into knowledge
4. Document your process and show how your work influenced or improved the final product
5. Identify potential issues in the usability, security, accessibility of systems, and solve them before they become a problem

Why are these important?

- You can make things that work better for people
- Understand **why** things are bad and how to fix them
- Explore new ideas to solve unaddressed problems

Potential uses of these skills

- As a user experience (“UX”) researcher or designer
- As a manager of engineers and designers
- Leading innovative design in a startup
- Improving the quality of what you make, whatever it is

How we'll spend time in the class

- **Tuesdays/Thursdays:** Lectures covering key concepts in HCI, Q&A, mini activities
- **Fridays:** Hands on group activities, collecting feedback on projects from your peers and TAs

Course policies and assignments

Course tools

- We'll use Canvas as the central point of interaction for the course
- Throughout the semester we'll be using a variety of tools: Google Drive, Github, Figma

“Real code” vs. “prototyping”

- Our goal is to figure out what to make as soon as possible
- … and to avoid making dumb mistakes

- This means that we’ll use the tools that will let us answer the questions that we need to know
- Sometimes that means coding, sometimes not
- We’ll use diverse tools (paper, HTML, video…)

Syllabus and web site

How to get an A

- Show up, participate, interact with others
- Do all the assignments: write clearly, show that you went through the process and learned something
- Turn in professional-looking work on time
  - Don’t turn in first drafts

Questions?

Introductions

About you

- Take 1 minute to introduce yourself to your neighbor
- Who you are, where you're from, what you hope to gain from this class
- Any questions you might have (we'll revisit these in a few minutes)

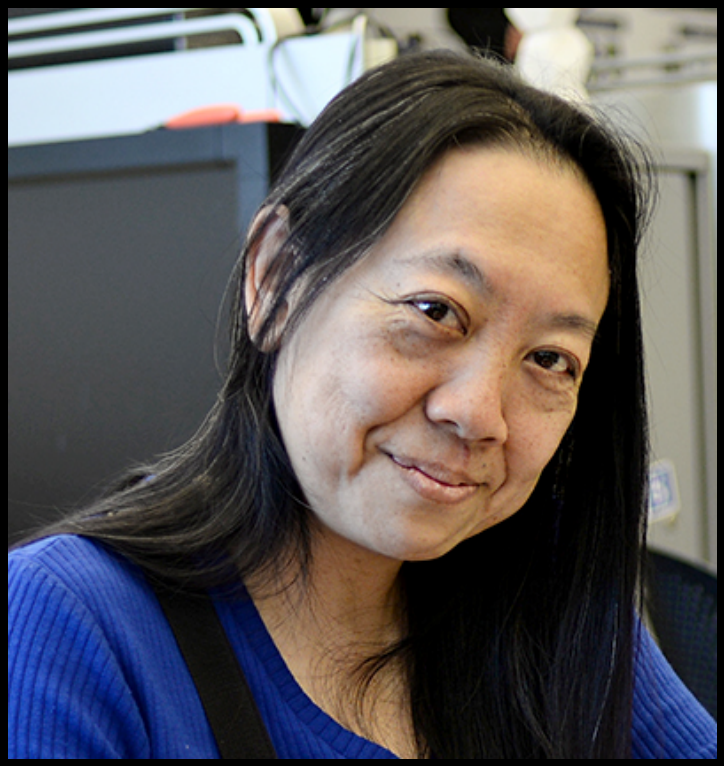
About me

Ellen Yi-Luen Do (杜宜倫)

Professor in the ATLAS Institute & Dept. of Computer Science
2nd year at CU
Google “Ellen Yi-Luen Do”

Have taught for Georgia Tech’s HCI program for a decade

ACME Lab @ ATLAS Institute
Computing, Creativity & Design Cognition, Things that Think, Spaces that Sense and Places that Play



Teaching assistant

Office Hour @ ATLAS
Wednesday 3:30 – 5:00

Abigail Rose Zimmermann-Niefield

Discussion

“Rules” for good design?

- Are there rules for good design? Are they objective, subjective, both?
- In HCI we use the term *heuristics* to represent “rules of thumb” for design
- Can you think of any?

Activity: finding heuristics

- One way to identify heuristics is to compare across examples
- Here, Palm III (1998) vs iPhone X (2017)

Comparison

- In what ways is the iPhone better than the Palm?

But!

- Some taboo terms:
  - Intuitive
  - Simple
  - Easy to use
- Explain *why* a difference might matter
  - If speed is different, why is that?

Discussion

- Technology (touch screen, materials)
- Physical buttons vs. Gesture based navigation (“natural”)
- Touch screen enables dynamic UI
- Biometrics - Security / authentication / unique
- Bright colorful screen
- Handwriting input

Follow-up

- Heuristics for technology at the university? (MyCU, Canvas, etc.)

For next time

- Read through the web site and syllabus
- And bring any questions you have
- Acquire or activate your i-Clicker