Today & NEXT WEEK:

**THIS WEEK:**
**Due Today:**
- Readings: Getting Data
- Mind Maps: CI principles, CI focus
- Canvas Quizzes: GettingDataGuide, CI Quiz A
- Other: Project groups – in class and Canvas

**Due Sat:** A2 Ethics report, micro-survey in Canvas

**NEXT WEEK:**
**In-class interview practice Mon**
- Pre-work – on-line shopping
- Mind Maps: CI particulars
- Canvas Quizzes: InterviewGuide, CognitionGuide, CI Quiz B

**In-class interpretation Wed**
- Readings: Work Models Guide
- Mind Maps: CI interpretation, CI consolidation
- Canvas Quizzed: WorkModelsGuide, CI Quiz C

**Due Sat:** Project Proposal in Canvas

Micro-survey top topics we’ll review today:
- Interactions v Interfaces
- Interactions and Visions
- HCI Goal Refining
- Misc
Micro-Survey Topics

Interactions and Interfaces:

• Think back to what you have to do to register for a class; the abstract activities – these are *interactions*:
  – Search classes taught in the spring to find one you think might interest you
  – Find out more information about what is in the class
  – Find out if it will work with your schedule; so, when is it taught, what does your current schedule look like
  – Find out if there is room in it
  – Sign up for it; if no room add yourself to the waiting list
  – Plus easy ways to loop back without losing prior info, such as what classes you’ve already investigated!

• Now think back to what you had to do on the registration website to do each of these things – these are the *interfaces*.

Did the physical interface as presented by the website match the user interactions that needed to occur?
Interactions, Interfaces, and Visions
Interaction Paradigms, Visions

- **Batch**
  - Interaction paradigm of his time
  - Vannevar Bush

- **Conversational, Graphical**
  - Interaction paradigm of his time
  - Ivan Sutherland

- **Batch, Conversational**
  - Interaction paradigm of his time
  - Douglas Engelbart

- **Graphical, moving towards Ubiquitous with Collaborative Work**
  - Graphical moving towards Ubiquitous with computers as communication mediums
  - Alan Kay

- **Graphical**
  - Interaction paradigm of his time
  - Mark Weiser

- **Conversational**
  - Interaction paradigm of his time

- **Graphical**
  - Interface: WIMP - windows, icons, menus, pointer
  - late 1990s - present, maybe
  - Interaction: everyday actions by users are the same with computing devices as with non-computing devices
  - Interfaces: varying sizes of devices, audio, hepatic, visual, gestures, ...

- **Batch**
  - Interface: magnetic tape, punch cards for instructions, magnetic tape, paper for results
  - mid 1960s - mid 1980s
  - Interaction: user enters command, computer executes, result sent directly to user

- **Conversational**
  - Interface: command line typing on a terminal for input, results written to lines on a terminal
  - mid 1980s - present
Micro-Survey Topics

When/how do you refine HCI goals?

• When you are defining your project *focus*, and when you are planning *any evaluation*

• You often start with a vague idea for a focus – “increase the efficiency of people working with the trouble ticket system”

• Then you need to define what efficiency means for this system – “creating a trouble ticket, accessing a ticket, updating a ticket, closing a ticket”

• This gives you enough info to create an initial focus: the work that will be supported, kind of people you want to observe, tasks you want to see, ...

• For an evaluation, you have to define efficiency exactly so that you can measure it and see if you have improved it with your design (time, # keystrokes/clicks, # forms/pages, # people involved...)
Micro-Survey Topics

Why is history important?
• Helps us see progression of ideas
• Provides framework for comparing today’s interaction designs

The idea of a hyper-link:
• Provides a kind of “random access” to heterogeneous items

Ubiquitous computing:
• Computing appears anytime and anywhere; in Weiser’s vision computing is so much a part of the fabric of our lives it is invisible.
Finally, Xerox Parc

Contextual Inquiry

Learning objectives:
1. Understand the overall goals of Contextual Design; where Contextual Inquiry fits in, what are its components
2. Understand how the project and its parts map to CI and the rest of CD
3. Understand the 4 principles of CI
4. Understand different relationship models possible for a CI field interview, their uses and how to recognize and move in or out of them appropriately
5. Apply this knowledge to an interview excerpt
Contextual Design Goals
Contextual Design Goals

Overarching goals

- see breadth of data without being overwhelmed
  - see common structure/patterns and also variations

- Representation: see work practice and system structure as a whole
  - make important issues stand out
  - creates single focus

- Support vision of complete solution
  - deliver in pieces useful on their own that grow into vision

- Make work, system concrete, explicit, sharable
  - while org structures try to pull design into parts based on the org structure

Contextual inquiry

Design tasks

Design questions

Part 1

1. Gives us individual information
   - coding (e.g. labels/work models)

2. “Summarizes” individual data into a general version of models
   - preserves variations
   - creates affinity diagram

Part 2

3. Walking the consolidated models and affinity helps identify personas and develop the vision of the re-design

4. Create scenarios for re-designed work

5. Create low-fidelity prototype: storyboards

Part 3

6. Evaluate with users and another team

7. Modify design, create high-fidelity prototype
Contextual Inquiry Principles
An example (Contextual Design, 2\textsuperscript{nd} edition)

Suppose you are working on a specialization of a car navigation system that is targeted towards people going on road trips to several locations over a few days. Locations can include customers, potential customers, shops, restaurants, attractions, etc. The duration of each location visit is short, no more than 2-3 hours, so there are several destinations within a day. Often there are appointment or reservation times involved, and getting lost is not an option.
Example – part 1 (15 min)

Read the dialog of a field interview. In your project group, answer the following questions (legibly!) on the handout:

1. This user is a sales person. In order to get data from other kinds of potential users of the specialized navigation system, what is one other kind of person you should interview?
2. What type of interview is this? Why?
3. What is the relationship model being used? How can you tell?
4. How does the interviewer present an interpretation of the user’s actions?
5. What are 2 observations you see about the way the interviewer gets data that will be useful to your project?
Example – part 2 (10 min)

Swap your answers with another group:
1. Discuss their answers among yourselves and make notes for them:
   • things you agree with
   • things you think could be interpreted differently
   • things you think they should have considered
   • things they wrote you wish you’d thought of

2. Turn in your papers; we’ll return them to you next class for your reference.
Self-evaluation (10 min)

1. Your name
2. What exactly did you contribute to the team work?
3. How did your contributions affect the answers to the questions?
4. How did your contributions affect your team’s responses to the other team answers?
5. What will you do differently next time to contribute more?

Your evaluation must be legible. It must contain specific examples, correct grammar, and complete sentences. It must be longer than ¼ page and shorter than ⅓ page.
Micro-survey

Add to self-eval or turn in anonymously, separately.

Today’s learning objectives were:

1. Understand where contextual inquiry fits into the contextual design process
2. Understand the 4 principles of CI
3. Understand different relationship models possible for a CI field interview, their uses and how to recognize and move in or out of them appropriately
4. Apply this knowledge to an interview excerpt