Micro-survey top topics we’ll review today:

THIS WEEK:
Monday: • Vision
Wednesday: • HTA and UED practice
DUE SUNDAY: Assignment 3

NEXT WEEK: Design

After Contextual Inquiry

Learning objectives:
1. User and stakeholder concepts.
2. Problems with jumping to UI design right after CI.
3. Importance of developing a vision for your design.
4. Developing a vision.

Materials originally created by Prof. Jamie Ruiz
Users and Stakeholders

• Models force you to consider people other than users themselves: **Stakeholders**
  – Have a vested interest in the system
• Primary stakeholders
  – Actual users of the system
• Secondary stakeholders
  – Individuals who directly or indirectly benefit from the system’s success (e.g. co-workers, managers)
• Stakeholders may have conflicting needs
  – Must balance stakeholders’ needs in designs

The process up to now

• Field data provides us data on what users do
• Work models structure that data, highlight how work is performed and where breakdowns exist
• Affinity diagrams consolidate data across models, interviews, observations

• What’s next?
Summarizing User Needs

• Affinity diagrams reveal major issues designs need to address

• Use affinity diagrams to create a list of unmet needs for your users

• List every possible aspect of work that could be improved, without indicating how it could be improved

Moving to Design

• Could start sketching out UI designs…. but
  − Interface designs are expressed in the context of a computational environment
  − …But that requires us to commit to a computational medium
  − …Our choice of computational medium colors our perception of what is and is not possible
  − …Can cause us to prematurely commit to designs without fully exploring the design space
  − …Frames our initial, potential solutions in terms of technology rather than user needs
Moving Forward

• Need to redesign work

• Need to identify metrics of success

• Developing a vision helps address both needs

Redesigning Work

• Before we get to UI design, need to consider how we will redesign work

• What services will new system provide?

• What problems will it address?

• Does it offer point fixes or entirely new ways of working?
  – A whole spectrum of work modification possible
Planning for Success

• Not enough to design something new and different

• How will we know we are successful?
  – Want to significantly improve workflow in a demonstrable way

• What are some ways we could measure our success?

• Need to define a vision of what a successful outcome will be

Developing your vision

• Computation may help:
  – One small, troublesome task
  – Completely redesign work

• May result in work completely performed in digital realm

• ...Or in work performed with existing physical artifacts, augmented digitally
  – Hybrid digital and physical media

• Preserve what works!
  – Don’t force users down technological paths that force them to lose the successful properties of existing work systems
  – Recognize what is good about existing systems and consider how you can naturally augment them
  – These points should be included in vision
Creating a Vision

• Vision is a summary that includes
  – Summary of problems (breakdowns) that will be solved
  – Summary of what currently works
  – Your vision of how you will redefine and improve work practices
  – Metrics you will use to measure success in solving those problems

• One or two paragraphs of text
• Does not need to include design ideas and implementation details at this point

Example Vision

Users of current debit card terminals encounter difficulties providing account information: the method, swiping a card, is error-prone due to card readers that can read a card in only one orientation. These card readers can also require several swipes because the technology can be unreliable; swiping must occur within a specific range of speeds. However, the form factor (a thin plastic card) is convenient it fits in a wallet.

We will improve this process by creating a system that retains the convenience of the existing form factor, but results in a significantly faster exchange of account information with significantly fewer errors on the part of the user.
Moving to Design

- You have your data and your vision
- Brainstorming is a tool to explore the range of possibilities
  - Kind of obvious
  - There is a culture of brainstorming
  - See BrainstormingGuide.pdf
- Perform task analysis
  - See TaskAnalysisGuide.pdf
- Create User Environment Design
  - See UEDGuide.pdf

For Wed:
1. Create your vision
2. Decide what tasks you want to concentrate on for design
3. Read the guides

Micro-survey

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3. Importance of developing a vision for your design.
4. Developing a vision.