

## Computer/Human Interaction

### Lecture 7

#### Overview:

- Requirements analysis and SBD
  - Root concept
  - Field studies
  - Analysis
  - Problem scenarios
  - Claims analysis

## Root Concept

- **Root concept** is multi-faceted statement that provides shared understanding of the project participants
  - Project vision and rationale
  - Initial analysis of stakeholders
  - Starting assumptions
- Example: on-line course registration

## Field Studies

- Includes workplace observations, recordings, interviews, artifacts
- Root concept determines which activities to observe, what questions to ask
- Try to observe or interview each stakeholder group at least once

## Analysis

- Summaries: stakeholder, task, and artifact analyses, general themes
  - For stakeholders: background, expectations, preferences
  - For tasks: HTA or similar
  - For artifacts: features, implied information or procedures
  - Workplace themes: category of related observations or discussion points, both good and bad

## Problem Scenario

- **Problem scenario** synthesizes analysis by telling a story about current practice.
  - Called a “problem” scenario because describes activity in problem domain
  - Creative endeavor, most scenarios are entirely fictional; use **hypothetical stakeholders** as actors
  - Goal is to reveal aspects of stakeholders and activities that impact design. Provide enough background to illustrate motivation of behavior.

## Claims Analysis

- **Claims feature** is anything with notable effect on a stakeholder’s experience
  - object, procedure, other person
- **Claims analysis** considers consequences of feature on stakeholders as illustrated by a problem scenario
  - Interleaved with writing problem scenario
  - Document both positive and negative impacts
  - Motivate design to increase positive impacts while decreasing negative impacts

## How Many Scenarios/Claims?

- Enough to illustrate all of the important activities, artifacts, and stakeholders
- At least one scenario for every stakeholder
- At least one or two claims from each scenario
- Multiple scenarios for complex tasks or stakeholder with multiple interactions

## Example

- Briefly describe some hypothetical stakeholders for the problem of providing on-line registration at UE.
- Briefly describe some problem scenarios using these stakeholders. What claims features are illustrated?

## Requirement Specifications

- Problem scenarios and claims analysis describe current practices, not what new system should do.
- Therefore, they are not requirement specifications.
- But they imply requirements by describing problems and opportunities of the current situation.
- They are interleaved with design phases.

## Homework 1

- Usability Case Study website at <http://ucs.ist.psu.edu>
- Skim all parts of Requirements Analysis portion of garden.com case study
- Study Problem Scenarios and Claims Analysis
- Write new problem scenario and a problem claim resulting from the scenario
- **Due at beginning of class on Friday**, will discuss and compare