CS 350: Computer/Human Interaction Lecture 20 Overview

- Prototyping and SBD
- Evolutionary Development
- Discuss Homework 4

CS 350: Computer/Human Interaction Prototyping and SBD

- Prototyping supports **iterative design**
- Prototypes are built in parallel with writing scenarios
  - Just one feature of a scenario
  - Features from multiple scenarios together
  - Features not yet described in a scenario
- Prototypes are evaluated; results fed into redesign

CS 350: Computer/Human Interaction Evolutionary Development

- SBD UI development works very well with agile software engineering techniques like extreme programming (XP)
- Agile techniques are a reaction to overly formal, rigid software engineering processes
  - No one method fits all projects
  - Identify the “lightest” method possible
  - Particularly for web-based business applications

CS 350: Computer/Human Interaction Extreme Programming (XP)

- Developed by Kent Beck in late 1990’s
- Goal is to do extremely rapid development while avoiding defects
- Includes lots of different practices including pair programming, continuous system integration, refactoring, test first
- Key issues have been scaling the technique to very large projects, security of information, etc.

CS 350: Computer/Human Interaction SBD and XP

- Relevant XP practices related to SBD include metaphors, clients on-site and part of design team, user stories
- SBD integrates well with XP. UI design proceeds in parallel with software design
- Key is that both are inquiry-based design processes. Users participate as full members of design team. Feedback can change design at any time.

CS 350: Computer/Human Interaction Key Tradeoffs

- Quality of prototype vs. premature commitment
- Building prototypes vs. time & resource management
- Realistic prototypes vs. early availability or discardable efforts
- Constant iteration vs. radical changes and/or refactoring of a design
- Dynamic platforms vs. organized, well-structured code base
CS 350: Computer/Human Interaction
Exercise 3, p. 194

- Step through two different email tasks (e.g. writing a new email, and transferring an email to a folder). For each one, analyze the support for the undo process provided by your email client. Does it reverse your actions in a predictable and natural way? Discuss why or why not.

CS 350: Computer/Human Interaction
Exercise 1, p. 224

- Reread the vignette at the beginning of the chapter. How could a better outcome have been produced? Offer at least two specific suggestions you believe would have improved the situation. Provide a rationale for each one.