IS 214 Needs Assessment and Evaluation of Information Systems

Usability Methods

Categories of Methods

- Inquiry – understanding users & tasks
- Inspection – expert examination
- Testing – watching users perform tasks

Inquiry Methods

- Field studies
- Contextual inquiry
- Focus groups
- Surveys
- Interviews

Inspection Methods

- Cognitive walkthrough
- Pluralistic walkthrough
- Heuristic evaluation
- Guidelines evaluation

Testing Methods

- Competitive evaluation
- Usability testing
  - Thinking aloud protocol
  - Co-discovery method
  - Remote testing

Choosing Methods

- Type of product – new or old?
- Management support – educate or exploit?
- Resources – money, people, equipment?
- Users – well defined, based on data?
- Objectives – limited scope or ambitious?
- Stage in cycle – time for changes?

Type of Product

- New / innovative products will need more inquiry into users and tasks, full UCD process
- New release of product might require only inspection and testing of new features
- New product in a mature market should focus on competitive evaluation first

Management Support

- With management support you have the time and resources to begin with user and task analysis, perform full UCD process
- With limited support you may want to begin with testing to identify problems
- You may want to educate the management team on the value and process of UCD

Resources

- With a full UCD team, divide into pre-purchase, out of box, GUI, documentation, support teams and work in parallel
- With fewer people, focus on high importance tasks, test on fewer users, fewer iterations
- Lower cost methods include surveys, heuristic evaluation, remote testing

Users

- If users and their tasks are well-defined, you can focus on inspection and testing, but beware internal speculation, insist on data
- If you are told the users are everyone, the users and market need more definition

Objectives

- Limited objectives limit scope of methods, for example, best-of-breed installation goal will focus methods on install and configuration
- Ambitious objectives relative to competition require inquiry, inspection, and testing of competitor products

Stage in Cycle

- In concept stage, focus on inquiry into user needs, understanding and prioritizing tasks
- In design stage, define users and tasks, begin with inspection and testing high-level design
- In development stage, focus on testing new and changed parts of the user interface
- Consider changing focus to next release

Choosing Methods - Class Exercise

- Scenarios for choosing usability methods
- Given product, organization, time and resources, what methods would you choose
- Reasons for your choices
- What questions would you ask of team
- What trade-offs would you be making

What's Important

- Choose your methods based on the limitations of the organization, resources and schedule
- Drive objectives to increase the resources available for usability in future releases