HCI341-EVALUATION

evaluating the user interface

OVERVIEW

- Likert scale
- Nielsen heuristics
- Ethnography
- Usability Test

FEEDBACK FORM

http://tinyurl.com/eeicvisit

WHY EVALUATE

to test the usability of the system and to avoid pitfalls

COGNITIVE WALKTHROUGH

define a task and walk through necessary steps to perform the given task

WALKTHROUGH EVALUATION

- Will the user try to achieve the effect that the subtask has?
- Will the user notice that the correct action is available?
- Will the user understand that the wanted subtask can be achieved by the action?
- Does the user get feedback?

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The cashier was courteous.	○	○	○	○	○
The cashier was professional in appearance	○	○	○	○	○
I was given a receipt at the end of my transaction.	○	○	○	○	○

LIKERT SCALE

asking questions the right way.

NIELSEN AND MOLICH'S NINE HEURISTICS

- Simple and natural dialog

  Simple means no irrelevant or rarely used information. Natural means an order that matches the task.

- Speak the user's language

  Use words and concepts from the user's world. Don't use system-specific engineering terms.

- Minimize user memory load

  Don't make the user remember things from one action to the next. Leave information on the screen until it's not needed.

NIELSEN AND MOLICH'S NINE HEURISTICS

- Be consistent

  Users should be able to learn an action sequence in one part of the system and apply it again to get similar results in other places.

- Provide feedback

  Let users know what effect their actions have on the system.

- Provide clearly marked exits

  If users get into part of the system that doesn't interest them, they should always be able to get out quickly without damaging anything.

NIELSEN AND MOLICH'S NINE HEURISTICS

- Provide shortcuts

  Shortcuts can help experienced users avoid lengthy dialogs and informational messages that they don't need.

- Good error messages

  Good error messages let the user know what the problem is and how to correct it.

- Prevent errors

  Whenever you write an error message you should also ask, can this error be avoided?

PERFORM HEURISTICS

- Gather users or HCI evaluators
- Ask them to judge Interface on all 9 points
- Gather data
- Ask usability expert to combine and analyze data

ETHNOGRAPHY

- Gather user
- Let them use system one by one
- Observe, record the usages pattern
- Analysis data from user observation

USABILITY TEST

- test product, not user
- Should be task oriented
- Quantitative (time, number etc)
- Qualitative (satisfaction, ease of use)

METHOD

- **Formative Evaluation** which is done early in a project's design and used to develop the design

- **Summative Evaluation** which is done when a project is completed.

- **Comparative Evaluation** which compares two ways of presenting the same information

- **Protocol Analysis** which asks users to speak aloud their thoughts either while performing a task (concurrent verbalization) or after (retrospective verbalization).

CONDUCTING TEST

- Thank your participants
- Do not embarrass participants
- Informed Consent Form
- Assure them of confidentiality if appropriate
- Might include incentives (food, $, …)
- Analyze your data carefully

MANY THANKS!