Human-Computer Interaction Design

Chapter 11+12
I300 HCI Design I Fall 2004
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SOME of this material follows the text:
Preece, J., Rogers, Y., & Sharp, H. (2002). *Interaction Design: Beyond Human-Computer Interaction*. New York: John Wiley & Sons, Inc.
and slides from http://www.id-book.com

What will we talk about?

- Intro of Josh and Tony
- Overview of Discussion
- Review Assignment #8
- Frameworks
- Group Framework Activity –
  - "DriveSoft Systems"
- Review of Frameworks

Tony vs. Josh
East Coast vs. West Coast HCI Design

Tony hails from N.Y.C.

B.S. in Science & Technology Studies Concentration in Engineering Design from RPI.

M.S. in Human-Computer Interaction

Thesis: Value-Sensitive Human-Computer Interaction Design Theory

Josh hails from L.A.

B.S. in Cognitive Science Concentration in Human-Computer Interaction from UCSD.

M.S. in Human-Computer Interaction

Thesis: T.B.D.

Review of Assignment #8

Volunteers???

Frameworks

Evaluation Paradigm	"Quick and dirty"	Usability Testing	Field Studies	Predictive
Role of Users:	Natural behavior	To carry out tasks	Natural Behavior	Users generally not involved
When Used:	Any time you want to get feedback about a design quickly. Techniques from other evaluation paradigms can be used- e.g., experts review software.	With a prototype or product.	Most often used early in design to check that users' needs are being met or to assess problems or design opportunities.	Expert reviews (often done by consultants) with a prototype, but can occur at any time. Models are used to assess specific aspects of a potential design.
Type of Data:	Usually qualitative, informal description.	Quantitative. Sometimes statistically validated. Users' opinions collected by questionnaire or interview.	Qualitative descriptions often accomplished with sketches, scenarios, quotes, other artifacts	List of problems form expert reviews. Quantitative figures from model, e.g., how long it takes to perform a task using two designs.

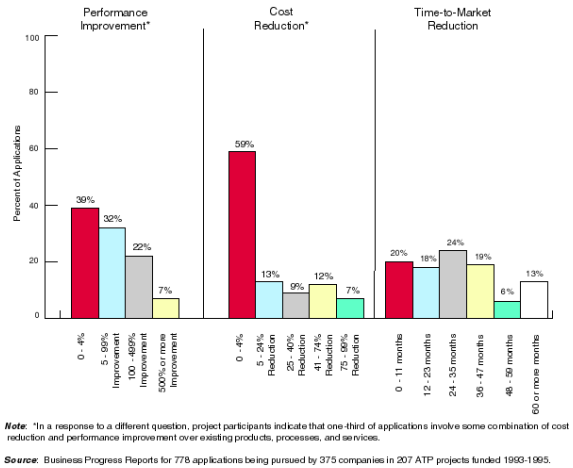
“Quick and Dirty” Method

- Immediate feedback
- ***Qualitative*** description
- Critique the following pages

The Q's

- Qualitative: descriptive and anecdotal explanation of a situation
  - Subjective

- Quantitative: Numerically measured explanation
  - (Relatively) Objective
    - Objectivity depends on what the experimenter is measuring



Note: *In a response to a different question, project participants indicate that one-third of applications involve some combination of cost reduction and performance improvement over existing products, processes, and services.

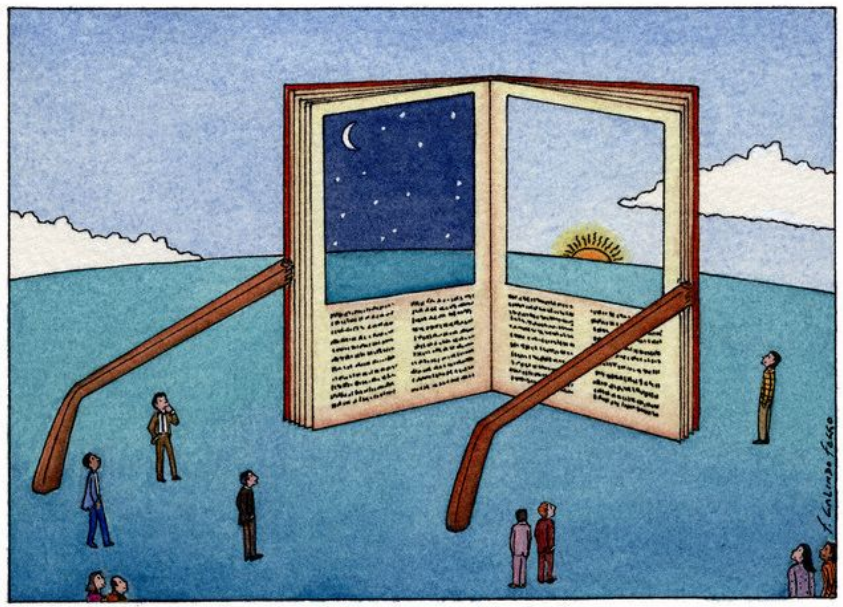
Source: Business Progress Reports for 778 applications being pursued by 375 companies in 207 ATP projects funded 1993-1995.

Usability Testing

- Generally in a controlled setting
- Quantitative
- Allows for “objective” benchmarks

Objective vs. Subjective

- Subjective: based on an individual's opinion
  - May be unintentional
- Objective: Use quantitative measurements



Field Studies

- Study natural behavior
- Ethnography is an example
- Qualitative
- Example: Hand Raising

Predictive Paradigm

- Expert Evaluators
- Generally quantitative methods used
- Heuristic evaluations

What methods?

Group Framework Activity:

Your task is apply the frameworks to
DriveSoft Car Computer
www.drivesoft.net

Review of Frameworks

- Which Framework did you select and why?