CMPE 235: User Evaluation of Technology

Instructor: Sri Kurniawan – E2/331

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What’s this course about?
► A wide variety of methodologies for evaluating technological interfaces with users
  - Working with users
  - Analyzing gathered information
  - Translating into design improvement ideas
► Movie clips of examples of work in the area
► Demonstrations and hands-on exercises on various techniques
► Guest lectures
  - From industry
  - From academia but on practical issues of user evaluation

Assessment
► 2 homework @ 10% = 20%
► Project = 40%
► Take home exam in W8 = 30%
► Pair presentation of a given topic and data gathering if appropriate = 10%
► Project (individual)
  - Choose one piece of technology to perform user evaluation on
  - A combination of ethnographic research, interview/focus group and survey (and some other technique, we will discuss on individual basis)
  - Qualitative and quantitative data analysis
  - Report including data interpretation in terms of improvements to the product
  - Presentation to a diverse audience (designers, marketing, management)

Tentative Lecture Timetable
► W1: Introduction and course logistics. The role and place of user evaluation in interactive system development.
► W2: Data and the nature of measurement (scales, variables, errors). User evaluation and empirical research concepts. Formulating "testable" evaluation criteria (hypothesis forming and testing, operationalizing variables). Basic experimental design (between vs. within subject; snapshot vs. longitudinal studies, etc). Components of user evaluations: participants, apparatus/stimuli, procedure, design, results and discussion.
► W3: Types of user evaluation: accessibility vs. usability vs. acceptance testing, ethical consideration, IRB.
► W4: Inquiry methods: interview, focus group, ethnography, contextual inquiry, survey - collocated and remote
► W5: Inspection (cognitive walkthrough, heuristics evaluation, cognitive models as evaluation tool) and testing (thinking aloud protocol, retrospective testing, co-discovery learning) methods - collocated and remote
► W6: Qualitative data analysis: grounded theory, content analysis of text and videos
► W7: Quantitative data analysis: validity and reliability, descriptive statistics, t-test, ANOVA, regression
► W8: Exam. Using statistical tools - introduction and demonstration of the statistical tool of Excel and SPSS
► W10: Student presentation: students present their data collection, analysis and interpretation.

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Using course resources
► The lecture notes
  - http://www.soe.ucsc.edu/classes/cmpe235/Fall10/
► Suggested readings:
► If you have any questions:
  1. Ask me questions at the end of the class
  2. Send me an email
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