5.2 Conceptual Design

CS 5984 Design of Interactive Systems
February 16, 2005
Today . . .

- Team Presentation A: Site and Problem(s)
- Sr/Sd and the NASDAQ building
- B: Conceptual Design
- Team Y membership
Today...

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Sr / Sd and the NASDAQ building
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Sr / Sd and the NASDAQ building

What is the signified (Sd) if the signifier (Sr) is constantly changing?

What happens to the site?

Sign = Sr + Sd
(Structuralism)

• Linguistics
• Saussure

Saussure’s graphical representation of the sign as being made up of a sound image and a concept.
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- **B: Conceptual Design**
- Team Y membership
B: Conceptual Design

- Develop a concept
- First pass literature search
- Create a convincing presentation (3/2)
- Create an equally convincing report (due 3/2)
- Prepare a list of materials needed (due 3/14)
- Create an even more convincing proposal to the Student Engineering Council for supplemental funding. (due 3/21)
B: Conceptual Design

Methods:
- brainstorming
- morphological (Zwicky) box to identify design space(s)
- concept selection method

Literature Search:
- CHI, CSCW, DIS, UIST...
- Journals, Interactions, Wired, ID...
- commercial products
B: Conceptual Design

- Presentation and Report (Wednesday Mar 2)
  - 10 minutes max / 5 pages
  - concept
  - methods
  - relevant prior work
  - possible implementations
- Materials budget (no later than Monday Mar 14)
- SEC Proposal (due TO ME Monday Mar 21)

Points: Presentation = 2, report = 1, SEC proposal = 1
Iteration: Method: Brainstorming

- One person facilitates: writes down ideas for all to see
- Everybody contributes ideas
- No idea is too crazy
- No judgments made during session
- Lull does NOT mean “done”
Iteration: Method: morphological box

- Exhaustive enumeration of alternative concepts
- Identify (e.g. brainstorm) variables with discrete instances ("V_n")
- Identify each instance ("i_v") of each variable
- Resulting n-dimensional array is design space
Method: concept selection matrix

- Systematically compare alternative designs against list of requirements

Procedure:
1. Create alternative designs
2. Enumerate all “requirements” (even implicit ones!)
3. Fill out matrix: columns = design alternatives, rows = requirements
4. For each element: +, -, or ““
5. Identify “best”

Use at different levels of problem solving
Method: concept selection matrix

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Coming Attractions...

- for Friday: Sketch Problem 4 due
- for Friday: read Buchenau and Suri on-line
- Meet in your teams - get going on concept
- for Monday: read DG chapter 5 + on-line
- Jihane and Umut -- send me stuff by noon Monday