HCI 4/21

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Language in Search

- Imagine the following is a cycle, starting with the first thing and moving clockwise
  - System: programming languages used for query processing
  - Output: layout and format of results as text and other graphics
  - User: mental model of data, structures, and relationsihps, plus natural language
  - Input: boolean expressions, command line, SQL, etc
- From user to input, how do we translate human language into formal syntax?
- From input to system, how do we parse query inputs correctly and unambiguously?
- From system to output, how do we represent query results visually, etc?
- From output to user, how do we take in and interpret display structure and details?

The Search Process

- The following steps are done usually in this order and also in a loop
- Formulate - express the search
  - The UI design should be simple **or** advanced, structured **or** flexible, and offer help
- Initiate - launch the search
  - The UI design should have explicit triggering, implicit updating, and offer auto-complete
- Review - assess the results
  - The UI should show the query itself, summarize the results, highlight matches, and support organization/visualization of the results
- Refine - formulate the next step (this is where the loop is - if the results aren't what were desired you refine the formulation)
  - The UI should allow for query changes, offer similar searches, guide possibilities, and suggest error fixes
- Use - gather and apply insights
  - The UI should link the results to common uses, allow for saving of queries, and allow feedback
- The dog desperately needed my attention so I stopped paying attention to love on her for a while oops