CTHCI Lab 1
Retrieving and Classifying Literature

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Review

• Three steps in the empirical approach
  • Why iterate?
• Variables
• Research question vs. research hypothesis
• Operational definition
• Three strategies in the empirical approach
  • Descriptive vs. Relational
  • Relational vs. Experimental (Third variable)
• Relationship patterns and strength

Literature in this Class

• Do I need to know what problems that GPS creates while driving?
  • No.
• Required reading: Examinable, must be read by everyone
  • The list will be published on our website and on L2P this week
• Recommended reading: Not examinable
• Other example papers: Not examinable
  • Examples to illustrate the concepts explained in the class.
In-Class Exercise: Binning HCI Papers

Seven Research Contribution types

• Empirical  
• Artifact  
• Methodological  
• Theoretical  
• Dataset  
• Survey  
• Opinion

Approaches  
Test  Look  Make

Research Example: CommandMaps

• Scarr et al., Best paper CHI '12  
• Improve toolbar (specifically Microsoft's Ribbon interface)  
• In-class exercise:  
  • Contributions?  
  • Benefits?  
  • Which part uses empirical science, ethnography, and engineering/design approach?

Available at: http://dl.acm.org/citation.cfm?id=2207713

CommandMaps, CHI '13

The Messy Truth

Observation  
Prototype 1  Prototype 2  Prototype n  Real-world study  Long-term effect study

Related scientific theory  Descriptive model  Predictive model  Commercial product
CommandMaps

• Contributions & Benefits:
  
  • "Introduces CommandMap interfaces for mouse-based command invocation. Theoretically and empirically demonstrates that their defining properties — spatially stable command locations and a flat command hierarchy — improve user performance."

  [Scarr et al., CHI ’12]