

# Evaluation Techniques in HCI

By

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# Outline

- What is evaluation?
- Goals of evaluation
- Evaluation through expert analysis
- Evaluation through user participation
- Choosing an evaluation method

# What is evaluation?

- Evaluation role is to assess the design
- Test systems to ensure that they actually behave as we expect
- Meet user requirements
- Evaluation should occur throughout the design life cycle
- Results of the evaluation helps in feeding back into modifications to the design
- Aim of evaluation is to test the functionality and usability of the design and to identify and rectify any problems

# Goal of evaluation

- To assess the extent and accessibility of the system's functionality
- To assess users' experience of the interaction
- And to identify any specific problems with the system

# Evaluation through expert analysis

- Originally proposed by Polson and colleagues
- Attempted to introduce psychological theory into the informal and subjective walkthrough technique
- Main focus is to establish how easy a system is to learn (by hands on, not by training or user's manual)
- Need four things
  - specification or prototype of the system
  - description of the task the user is to perform on the system
  - Complete, written list of the actions needed to perform the task with the proposed system
  - An clear indication of who the users are and what kind of experience and knowledge the evaluators can assume about them

# Evaluation through user participation

- Heuristic evaluation
  - Heuristic is a guideline or general principle or rule of thumb that can guide a design decision or
  - Also can be used to critique a decision that has already been made
  - 3-5 evaluators is sufficient

# Choosing an evaluation method

- Factors distinguishing evaluation techniques
  - Design vs. implementation
  - Laboratory vs. field studies
  - Subjective vs. objective
  - Qualitative vs. quantitative measures
  - Information provided
  - Immediacy of response
  - Intrusiveness
  - Resource

Thank You!