

Scope and Coverage This topic will cover: Interface design that addresses the requirements and characteristics of an interface user An evaluation of interface design principles and whether these principles address the requirements and characteristics of the interface

Design of Evaluate an Interface with Regard to the Requirements and Characteristics of its Users Topic 12-123 Learning Outcomes By the end of this topic students will be able to: Design an interface that addresses the requirements and characteristics of an interface user Evaluate and discuss whether interface design principles have been applied to an interface Evaluate and discuss whether interface design principles have addressed the requirements and characteristics of an interface user

Terminology Terminology Terminology will be explained in the lecture, seminar and tutorial and you should take notes. Ask questions if there is anything that you don't understand.

Purpose of Evaluation

- The success of any interactive information system depends on its functionality, performance, reliability and user interface.
- Each one of these factors is important and inefficiency in any one of them can cause a problems in the system as a whole.
- A systems analyst needs to consider each factor when evaluating a user interface.



Design or Evaluate an Interface with Regard to the Requirements and Characteristics of its Users Topic 12 - 12.6

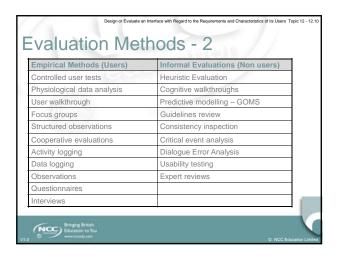
Evaluation of a User Interface - 1

- Can take the form of a user-acceptance test, based on the requirements specification produced by the Systems Analyst
- Also a HCI evaluation assessment that is derived from the User Analysis and Task Analysis (discussed in Topic 11)



Evaluation of a User Interface - 2 The following usability goals are required to be included in any test of the usability of the interface: free from errors efficient easy to learn easy to recall easy to use

Evaluation Methods - 1 There are a considerable number of methods available for evaluating a human computer interface. Some are undertaken by users of the actual system, others by experts or 'evaluators'. The following table illustrates the main methods of evaluation and further reference will be made to this in the seminar/private study sessions.



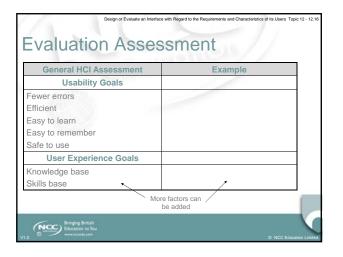
Heuristic Evaluation - 1 Not undertaken by real users Undertaken by an evaluator An observer answers an evaluator's questions about the interface or gives advice on using it The evaluator states what they don't like about the interface and their reasons why.

Design of Evaluate an Interface with Regard to the Requirements and Characteristics of its Users Topic 12-12-12 Heuristic Evaluation - 2 • An evaluator assesses if the following is present: - simple language and directions - easily recalled - consistency - feedback - clearly marked exits - shortcuts - clear and relevant error messages - lack of errors - help features

Heuristic Evaluation - 3 • However, this method has been criticised for the following reasons: - Usability problems are identified but there is not always an explanation of how they are to be improved or corrected. - Since the evaluators are not actual users, they may not identify all problems or potential problems with usability.

Evaluation Documentation The following are examples of the type of documents that can be used when undertaking evaluation of a human-computer interface: An Evaluation checklist An Evaluation Assessment





Design or Evaluate an Interface with Regard to the Requirements and Characteristics of its Users Topic 12-12.1 Impact of a New or Updated User
Interface on an Information System
 The acceptance of a new or updated information system by its users usually depends on their experience with the user interface.
 It is therefore crucial to analyse their requirements and the system's requirements as thoroughly and accurately as possible and produce a specification that documents these needs precisely.
Evaluation of the interface must be robust to identify and correct any problems.
Bringing British

Design of Evaluate an Interface with Regard to the Requirements and Characteristics of its Users Topic 12-12.18 Conclusion If an information system's users are satisfied and comfortable with their interface, this can: increase productivity reduce training costs reduce maintenance costs prevent user errors contribute to job satisfaction

Preece, J., Rogers, Y. and Sharp, H. (2002) Interaction Design: Beyond Human-Computer Interaction, John Wiley & Sons, New York. Hinze-Hoare, V. (2007). Review and Analysis of Human Computer Interaction (HCI) Principles. [Available Online] http://arxiv.org/ftp/arxiv/papers/0707/0707.3638.pdf

