Ch.18
Methods for User-Centered Design

Aims and objectives

- Identify the importance of considering the whole human-computer system
- Understand the role of the different methods within HCI design
- Understand the ‘star’ life cycle approach

Soft systems methodology(SSM)

- The essential aspect of understanding situations from a systems perspective is to consider the system as a whole.
- The emphasis of SSM is not on finding a solution to a specified problem, it is on understanding the situation in which a perceived problem is thought to lie.

Stages of SSM

- Stage1-the problem situation
- Stage2-The problem situation expressed
- Stage3-Root definitions of relevant systems
- Stage4-Building conceptual models
- Stage5-Comparison of models and expressed problem situation
- Stage6-Feasible and desirable changes
- Stage7-Action to improve the situation

Cooperative design

- Participative design
- Sociotechnical design

Open Systems Task Analysis(OSTA)

- The most significant of sociotechnical approaches to system design

Steps involved in OSTA

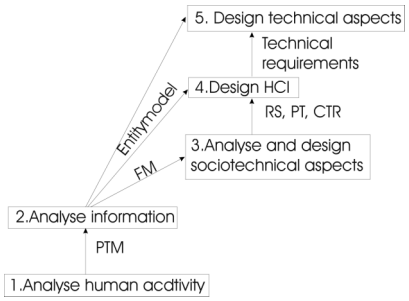
- Step1-The primary task of a work system is stated
- Step2-Task inputs are identified
- Step3-The external environment is established
- Step4-Transformation processes are described
- Step5-The social system is analysed
- Step6-The technical system is analysed
- Step7-Performanfce satisfaction is introduced.
- Step8-The requirements for the new technical system are derived from the task analysis

Problems of OSTA

- The need for an expert to guide the design process and support user
- Level of integration with other system development processes and methods
- They can only be used if the organizational political climate is suitable
- sometime, cost effectiveness

Multiview: A user-centered methodology

- PTM-Primary task model
- FM-functional model
- PT-People tasks
- RS-Role sets
- CTR-Computer task requirements

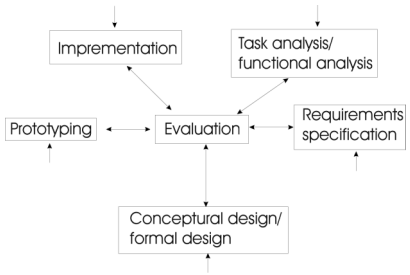


Strength and weakness of Multiview

- Strength-Ability to aid designers, ensuring that systems are developed carefully and logically
- Weakness-difficult to fit specific designs into a rigid framework

An HCI design approach(Star model)

- Evaluation is central in this model
- All aspects of system development are subject to constant evaluation by users and by experts
- Star model promotes an "alternating wave" approach to system development



Star model

- Enphasizes the important distinction between conceptual design and physical design
- Primarily oriented to the particular demands of developing interactive systems that will be usable by people.