

Chapter 10

Organizational Aspects

Chapter 10 is aimed to inform on:

- What are the main organizational approaches
- how technology impacts organizations
- methods proposed to improve the quality of work in organizations
- know what the problems are to trying to incorporate this knowledge within HCI and system design

Interacting factors of organizations

- The people in them
 - each have different motivations, roles, etc.
- The technology used and created
 - each have different functions, reliabilities, etc.
- The work organization
 - the way work is allocated to number of groups
- The organizational culture
 - ‘way we do things around here’

Perspectives on nature of organizations

- The metaphorical perspective
 - conceptualize them in terms of metaphors
- Metaphorical notions proposed
 - The paperless office
 - all paper work and reading material is done electronically
 - The automated office
 - factories operated by robots
 - The electronic cottage
 - people work from terminals at home
 - The global village
 - convergence of telecommunications interconnects world

- The participants' perspective
 - characterizing organizations by looking at how the members of the organizations interpret the structures and processes present in the organization in which they work
 - considered as creating a new **organizational form**
 - a previously disputed course of action becomes the establish correct way of doing something

Impact of information technology on organizations

- Specifically computerization on organizations
 - disputes whether computerization is revolutionizing society or that it's taking over by changing methods of organizations
- List of advantages of computers
 - electronic records, safer systems, reduces costs, reduction of monotonous jobs
- List of problems of computerization
 - increase in unemployment, hi-tech weapons, infringement on provacy

Concerns about impact of technology upon jobs

- Technical system as control
 - IT is deskilling, takes work from people, reduce repetitive work
- Technical system as tool
 - IT is enriching, boring jobs given to computer
- Organizational theorists have 2 main approaches to identify the process by which benefits or problems IT solves
 - Technological determinist
 - technology is the single most important factor to determine success
 - Social action
 - technology is enabling rather than deterministic

Methods of organizational change

- Scientific management
 - assumption that work obeys scientific laws and can be analysed using scientific methods
 - scientific principles include
 - choose best person for job
 - train workers to perform the tasks
 - determine best form of reward for the different tasks
 - monitor worker performance

- Sociotechnical systems approach
 - show how the social and technical subsystems of an organization interact with each other
 - design of a technical system always has effects on the human aspects and vice versa

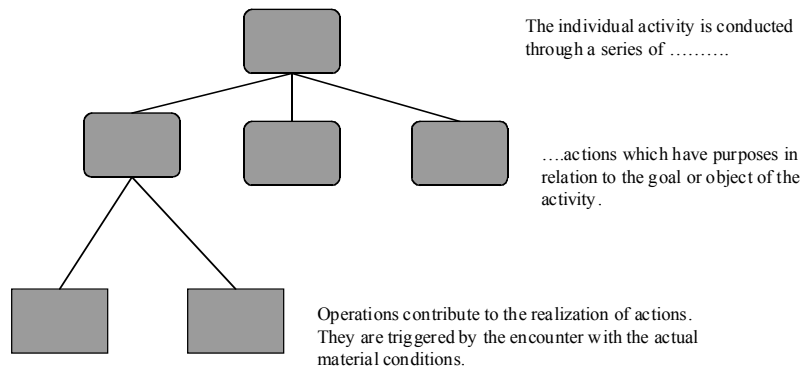
 - Sociotechnical design principles to achieve autonomous group working (3 of 9 steps)
 - 1st initial scanning
 - 2nd identification of unit operations
 - 3rd identification of variances

 - Problems with sociotechnical approach
 - difficult to put into practice

- Activity theory
 - used to inform the analysis and implementation of systems that are used in the workplace
 - developed as a method to analyse user interfaces and CSCW systems

 - Activities
 - collective venture of various groups
 - Actions
 - conscious acts of an individual in view of specific intentions
 - Operations
 - mean of realizing an action that are carried out relatively unconsciously

Relationship between activity, actions and operations



Cont.

- Breakdowns
 - occur when there is a conflict between what is assumed to happen and what actually happens
 - users taught commands to print, but commands don't always work
- Contradictions
 - occur when vicious circles develop that prevent the workers from breaking out of inefficient and undesirable situations that have developed in a community practice
 - ex. Doctors - speedy results and demand of quality care

Ethnomethodology

- Ethnomethodology
 - a sociological approach that has been used recently to study how new technologies have been introduced into various work settings.
 - A main issue under consideration is how well new technologies like audio or video links support existing working practices
 - ex. Video and audio links introduced into office environment
 - disrupted the normal communicative practices of staff
 - think twice about introducing any further new technology

CSCW and organizational considerations

- Two aspects
- 1) Use of CSCW systems is the relative contributions and benefits each member of the organization obtains from the group
 - ex. Managers benefit more from introduction of multi-user systems
 - ex. Managers benefit more from automatic meeting schedule
- 2) CSCW systems are designed to take into account how the additional workload and benefits are to be shared
 - ex. Introduce networked computer system
 - everyone can equalize and share power by data sharing which lead to improved performance