



Chapter 1:

Task-Artifact Cycle and User Needs

Task-Artifact Cycle

Start by

adoption, appropriation, use

New possibilities or constraints of use

Artifacts

New requirements as a result of revised or changed task

Requirements and design ideas

In technology development, the task-artifact cycle is the background pattern: task outcomes and human experiences implicitly define the agenda for new technological artifacts, which modify subsequent task outcomes and experiences.

- Foundation of the Task-Artifact Cycle: Humans have needs and preferences
- Technologies are created to suit these needs
- Humans then use the technologies
- With the use, needs and preferences might change

heed I Tec

99 38 "Human activities implicitly articulate needs, preferences and design vision.

Artifacts are designed in response, but inevitably do more than merely respond.

Through the course of their adoption and appropriation, new designs provide new possibilities for action and interaction. Ultimately, this activity articulates further human needs, preferences, and design vision" (Caroli 2013)

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maslow's therarchy

User Needs

In the task-artifact cycle it is essential to focus on user needs - however user needs are often very abstract and hence the guidance for a concrete implementation is often limited.

Maslow's Hierarchy of Human Needs

Morality, creativity, spontaneity,

problem solving, lack of prejudice, acceptance of facts

Self-esteem, confidence, achievement, respect of others, respect by others

Friendship, family, sexual intimacv

Security of body, of employment, of resources, of morality, of the family, of health, of property

Respect Achient
(Safety) Race

Safety

Esteem

Self-actualization

Love / Belonging

Physiological