### Use of IT – and how it is learnt

- Aim
  - Identify the tasks in which the application for your Assignment 1 will be used
  - Determine learning goals for use of the application for the tasks
  - Determine the level of mastery of these goals
    - according to the Externalisation of IT use model
- Literature:
  - Chapter 7. Understanding use of IT

### Without understanding usefulness

- Yes, I know the intranet system, but it is more convenient to use the same mail system for all messages
  - Staff in a high security company
- No, I didn't learn the new features, since I cope well with what I already know.
- This structured XML editor is only something that the IT people has wants us to use. The layout becomes better with Word

## Importing spread sheet into document

- Aim
  - Able to choose copy-paste or import by link
- Problem
- (U1)
- You are to write a report on the health for last year
  - The numbers are not complete yet
  - You have to start writing nevertheless
  - Numbers in a table in a spread sheet
  - Table should be part of a document
  - What happens if data in the table needs to be changed?

Other use?

Are there other types of data than tables where import by link is an advantage?

When do we choose Copy-Paste anyhow?

### Externalisation of IT use

- Skills for use in tasks
  - Can use IT to support activities
- Understanding current situation
  - Can explain how IT interacts with activities
- Understanding possible changes
  - Can explain what IT could do for me, my organisation and society
  - Can predict how IT, organisation and society might affect each other

om doing to talk

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# Qualities of IT applications

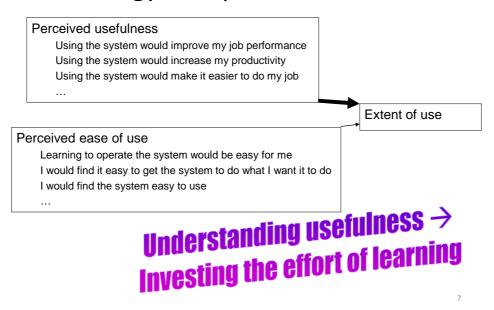
- Usefulness
  - Effectiveness
  - The quality of the result achieved
- Usability
  - Efficiency
    - Time and effort used to achieve the result
  - Satisfaction
    - Comfort and acceptability amongst users
- Learnability
  - Time from first encounter to use
  - Number of trials before errorless use

A system for collaboration

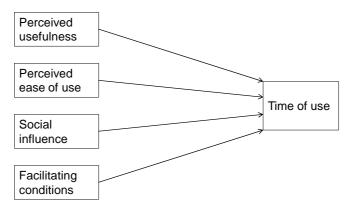
- Good design
- All functionality Why not used?



# Technology Acceptance Model – 1989



# Technology Acceptance Model – 2003



# Effect of training

- More interdependence between tasks
  - Training more effect
- More complex technology
  - Training more effect

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## Levels of mastery

#### Information technology – Externalisation of concepts

 $\text{IT skills } \longrightarrow \text{IT functional understanding } \longrightarrow \text{IT conceptual understanding }$ 

#### Information

Representation competence

Reproduction skills  $\rightarrow$  Representation system skills  $\rightarrow$  Representation system understanding

Correspondence competence

Interpretation skills  $\rightarrow$  Validation skills  $\rightarrow$  Validation understanding

#### Tasks - Externalisation of IT use

Skills for use in tasks  $\rightarrow$  Understanding current situation  $\rightarrow$  Understanding possible changes

# **Exercises**

1

2

3