Contextual usability
Organisational development and vision seminars

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Agenda

- Organisational aspects of IT use
  - Introduction
- Main messages
- Introduction to the “vision seminar process”
- Introduce assignment 1
ISO 9241:

Definition of usability:

"The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use"
5 Themes

1. *Organisational and systems development, vision seminars*
2. Work environment problems in IT supported work
3. Contextual design in complex work domains
4. Cost-benefit analysis of IT systems
5. Systems development with usability in focus: success factors and pitfalls
Administrative work – before....
Or (administrative work – before....)
After....
What has happened?

- Consider the new situation – what has changed?
- Effects of different kind?
- List important aspects to consider!
- God? Bad?
On the other hand - research results do not spread fast....
Train traffic control – before...
Before....
Before...
After: the new workplace
Patient records, before...

One patient – sometimes many records....

Archives, ....
After...

One patient – one record

Read via screen...
What has happened, generally?

- Consider the new situations – what has changed?
- Effects of different kind?
- Let us list important aspects (type of effects) to consider when analysing important effects of introducing new IT, computers, information systems, technology in a work environment!
- Effects? God? Bad?
The main message is:

- Introducing IT leads to several different changes/effects.
  - Even if you try not to...
- We must study all relevant aspects, not only technical ones.
- The development must include all relevant aspects.
- Introducing new IT can be a motor of positive changes of different kinds.
- We should/must not develop IT for today’s work, but for the future work!!
There are problems...

- Most development models do not consider other than technical aspects in enough detail.

- Analyse some development models in this respect!
  - E.g. RUP? Agile models, Scrum etc?

- What is lacking?
When is IT useful?

- It is only when you reach organisational changes that IT contribute to positive changes. “Don't Pave Over Old Cow Paths” (ref Brynjolfsson etc.)

- E.g.:
  - Decentralization, new work processes, new competencies, cooperation, communication, overview, local planning, follow up, evaluation, quality assurance ...
Vision seminars

- We want to develop “all relevant” aspects of the organisation, including the new IT/Information systems.
- We want to design tomorrow’s organisation, work and IT systems. (Specify requirements for....)
- The goal: a new efficient, safe and sustainable work!
Research grounds

- Efficiency of IT?
- Relations between organisation and IT.
- Requirement gathering.
- User participation (PD, UCSD)
- Local engagement
- A common ground in the organisation
- Create security (in people)
- “The reflective practitioner”
- Field studies, site visits, observations, interviews....
Steps in the vision seminar process

- Work groups of professionals.
- Process leader/guide supports the group.

1. Specify strategic goals and prerequisites.
2. Describe “now”: present organisation, work, conditions, problems, need for development.
3. Develop visions (målbilder) of the future work stepwise and iteratively.
Result of the VSP

- The result should/can be:
  - Aspects on future organisation, work, IT etc.
  - Scenarios of the future work.
  - Preliminary requirements for new IT, as a part of the new work.

- After that, the development process can start, on stable ground!
What is a “vision” of future work?

- A concrete specification of what we are striving at.
- Aims at a specified time horizon.
- Will perhaps never be fully reached.
- Does not mean that everybody gets what they want.
- Will change over time.
- Is necessary for coordinated development.
- Is necessary to be able to discuss goals, future solutions, effects etc. in a concrete way.
- Can be evaluated before the future solution is implemented.
Vision...

Work today

Environment

IT

Prerequisites

Compare

Development

Future work

IT

Environment

Prerequisites
Aspects (1) can be...

- Overall goals for the future work
- Delimitation in the work with the vision of future work
- Recognized threats and problems
- Possibilities and “dream scenarios”
- Positive parts of today’s work
- Culture, engagement and basic values
- Service to costumer
- Quality and quantity in work
- The future organization - structure
- The future work organization
- Aspects on mobile work
- Competence and knowledge
- Recruitment
Aspects (2)

- Collaboration internally and externally
- The practical content of future work
  - New work tasks
  - Deleted work tasks
  - Changed work tasks
- Automation of work processes, information handling transformation to e-services
- Information needs in the future work
- Future IT system
  - Perceived problems today
  - The historical development of IT system in the organization
  - Present status and ongoing IT projects
  - General requirements on future IT systems
  - Desired functionality in a future IT system
  - Usability requirements on future IT system
- Occupational health issues
  - Recognized problems today
  - Future plans to work on occupational health issues
  - General requirements on the future work environment
The process

- Put together the work group and process leaders
- Plan the meetings and intervals
- Time horizon? (When is future?)
- “Threats and dreams”
- Future “environment”
- Aspects of the future work - list
- Iterations!!!
- Scenarios (“a day at work”)
- Information systems (preliminary)
Exercise
Questions?