Contextual usability 2009

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http://www.it.uu.se/research/hci

Contextual usability

Agenda

- IT in professional work environments
  - Introduction
- The course *Contextual usability*
- The seminars
  - Contents
  - Your own work
- Schedule
- Examination

Contextual usability

Contextual Usability The course

- How to successfully work with usability in practice?
- You know a lot about usability, user centred methods, interface design etc, but..
- ..how to apply it in the “real world”?
- We introduce different issues, you will “dig into it” and write reports!

Contextual usability

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"

Contextual usability

Contextual usability

- What is ”contextual”?
- Usability must always be related to
  - *a specific product*
  - *specified users*
  - *specified goals*
  - *specified context of use*
- How to create usable IT-solutions in practice
- Much focus on work related IT, i.e. IT used by professional users

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IT in professional work

To use computers and technology in a work environment .....

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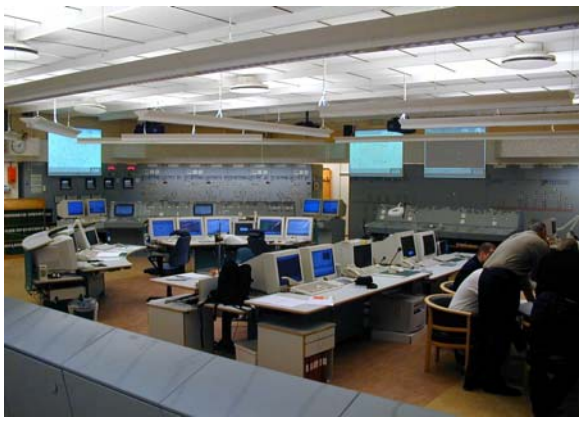
IT-supported work

Contextual usability



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IT-supported work....

- ...is not about handling computers,
- but to perform qualified work *using* computers, as a tool,
- that should support, not hinder or confuse.

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When developing IT-systems

- We must provide efficient tools to the users
- We must understand the users' needs and requirements
- We must create a good work environment
- We must use efficient development models/methods/techniques

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The importance of usability

- We do not talk about ”user friendly”
- Usability is a prerequisite for:
  - Efficiency
  - Safety
  - A good work environment
  - Healthy, sustainable work
- I.e. necessary for supporting the organisation and the users.
- Usability is not only the user interface.
- Usability is something that you build into a system from the very start.

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IT in Sweden

- >70% use IT daily.
- >35% use IT more then half day.
- In ”administrative work” (25% of the labour) almost all use IT 100 %.
- Approx. 35 % of all work is performed with direct use of IT.

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”Chaos” about IT development projects

- 30% of all projects are never finished
- 50% of all projects
  - cost 190% of planned budget
  - for 40% of planned functionality
- 20% are finished within time and budget
  - For large projects: 10%
  - For VERY large projects: 0 %

(www.standishgroup.com, 1995)

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"Chaos" – success factors

- E.G:
- Involve users
- Well specified goals
- Stepwise development
- Do not change everything at the same time
- Focus on deployment
- ....

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A new Chaos report, 2009

- 32 % completed on time and budget
- 44 % "challenged"
- 24 % total failures

- Swedish research:
  - All "failures" do the same mistake, and at the same time – at project start!

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Are IT-support systems efficient?

- Many use IT 100% of the day
- IT-systems are often
  - Slow
  - Complex
  - Confusing
  - Non-intuitive
  - Require unnecessary attention
  - Un-reliable
  - Not supporting skilled users

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Is IT useful and efficient?

- Are there problems? -Yes
- What are the problems? - Many
- You know already a lot about solutions!
- How to use existing knowledge ***in practice***, in order to solve these problems in real projects?
  - (The solutions are well known since long, but the situation is not improving much. Why??)

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The course

- **Contextual usability, per 2, 2009**
- **15 hp (higher education credits)**
- **Course code: 1MD021**
- **Course homepage: http://www.it.uu.se/edu/course/homepage/contextuse/ht09**

Contextual usability

Contextual...

- The course will be based on much of the material taught in earlier MDI courses and courses in the master program.
- We will continue to *study and analyse how MDI related methods and techniques can be implemented in practice, and try to understand pitfalls as well as success factors in this respect*.

Contextual usability

Main topics will be:

1. The relations between development of organisations, work processes and IT-systems. Vision seminars, future workshops etc.
2. Work environment and health risks in IT supported work.
3. Specific usability problems in some different specific work domains
   - Process control, complex dynamic systems
   - Health care,
   - Administrative, case handling work
4. Evaluation of cost/benefit of IT investments and IT systems.
5. Systems development models and projects, pitfalls and success factors.

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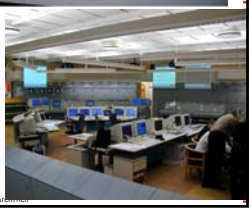
Process control – operator work



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Health care work

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Administrative work – case handling, office

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Contextual usability

18 seminars

- Introductions
- Group assignments
- Supervision
- Guest lectures
- Site visits
- Written and oral reports

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5 Themes

1. Organisational and systems development, vision seminars
2. Work environment problems
3. Specific domains (choose one!)
   - Process control
   - Health Care
   - Administrative systems
4. Cost-benefit analysis of IT systems
5. Systems development, success factors and pitfalls

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For each theme

- Introduction (guests, site visits)
- Written instructions
- Your own work (literature, web search…..)
- Written reports
- Oral presentations
- Discussions

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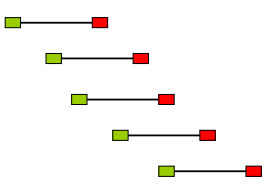
The assignments

- Assignment 1
- Assignment 2
- Assignment 3
- Assignment 4
- Assignment 5



During work periods (2-3 w): find material, read, analyse, summarize, write report, plan oral presentation

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Assignments

- Work in groups (5 pers.)
- Plan your work!!
- Ask for help when needed
- Written and oral reports at scheduled seminars
- Full speed course!! You should work full time!!

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Examination

- Examination is performed through active participation in the seminars and oral and written presentations of the assignments.
- Grading System:
- U=Fail, 3=Pass, 4=Pass with credit, 5=Pass with distinction
- ECTS credits will also be given, i.e. A, B, C, D, E, FX, F

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Start now to...

- ...form efficient groups.
- 5 persons that can work good together.
- Think about this until Monday!

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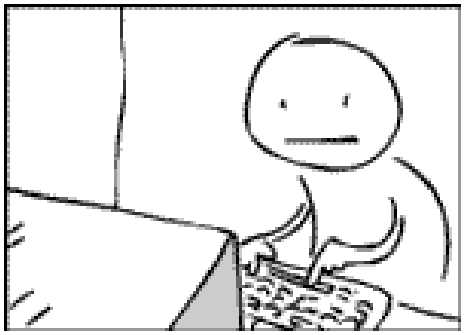
Questions?

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