Contextual usability 2011

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

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

- 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
IT in professional work

To use computers and technology in a work environment .....
IT-supported work
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,

Contribute to efficiency, safety, good work environment etc.
When developing IT-systems

- We must provide efficient tools (systems) 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.
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.
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.
“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)
“Chaos” – success factors

- E.G:
- Involve users
- Well specified goals
- Stepwise development
- Do not change everything at the same time
- Focus on deployment
- ....
A 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!
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
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??)
The course

- Contextual usability, per 2, 2011
- 15 hp (higher education credits)
- Course code: 1MD021
- Course homepage:
  http://www.it.uu.se/edu/course/homepage/contextuse/ht11
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.
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, e.g.
   - Process control, human control of complex dynamic systems
   - Health care

4. Evaluation of cost/benefit of IT investments and IT systems.

5. Systems development models and projects, pitfalls and success factors.
Process control – operator work

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Health care work
Administrative work – case handling, office
14 seminars

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

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

- Introduction (guests, site visits)
- Written instructions
- Your own work (literature, web search.....)
- High expectations, you should reach “the research front of today”
- Written reports
- Oral presentations
- Discussions
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
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!!
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
Start now to...

- ...form work groups.
- 5 persons that can work good together.
- Plan your work for the coming weeks.
- Think about this until next lecture!
Questions?