Contextual usability 2009

Human-Computer Interaction
Dept of Information Technology
Uppsala University

Bengt Sandblad
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....

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

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
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 than 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 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!

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

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
   - 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.
Administrative work – case handling, office

18 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
   - Administrative systems
4. Cost-benefit analysis of IT systems
5. Systems development, success factors and pitfalls

For each theme
- Introduction (guests, site visits)
- Written instructions
- Your own work (literature, web search.....)
- 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
  - ECTS credits will also be given, i.e. A, B, C, D, E, FX, F

Start now to...
- ...form efficient groups.
- 5 persons that can work good together.
- Think about this until Monday!
Questions?