NordiCHI 2000 — Tutorials

Work environment and health problems in computer supported work

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Despite recent improvements in the development of computer support systems, e.g. methods for user centred development, requirement specification, interface design and usability engineering, we still face severe problems concerning the work environment in modern computer supported work. Reports indicate that the problems are increasing. Experiences from recent evaluations performed within large organisations in Sweden also support this.

Todayís methods, models and tools for system development are insufficient to prevent different kinds of work environment problems encountered in computer supported work. By an analysis of how different work environment related aspects are treated (or are not treated) during the development process, we have been able to identify such deficiencies and gaps in many of the commercially available development tool systems. Preliminary studies have shown that there is a potential for preventing work environment problems by better development models and software tools.

In our research, some modern software development models and tools have been studied and new requirements concerning their properties have been specified, in order to improve them. Some of the most important additional factors that must be treated by the software development tools are: modelling of future work processes, combined development of work organisation and IT support systems, user interface design that can reduce the mental work load and the control of the work processes, education and training of future users in order to prepare them for the new technical systems and for the new work processes. Preliminary work has been made in order to include new modules in the development models and tools to overcome these deficiencies.

Tutorial. Work environment and health problems in computer supported work

This half-day tutorial is an introduction to the understanding of computer related work environment problems, and will give some advice concerning how they can be avoided.

Who should attend?

Developers, system designers, project managers, occupational health specialists and other interested.

Goal

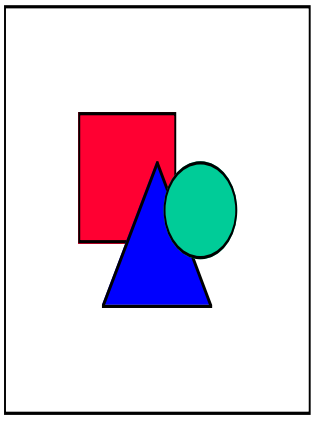
After the tutorial, participants should have a good understanding of how different types of work environment problems are related to properties of computer supported work. Methods for analysing such work environment problems will be shortly presented. We will also discuss how modern models, methods and soft-ware tools for development of computer system treat such problems.

Tutorial content

- Computer related work environment problems
- Methods for detecting such problems
- How are work environment issues treated by modern development methods?
- Some practical advises how to avoid work environment problems when new informations systems are being developed.

Biographies

Carl Åborg has been an occupational health and work environment psychologist since 1980. He is presently employed by Futura, the R&D department of AB Previa. He is also a graduate student at dept. of human-computer interaction, Uppsala University. He is presently responsible for the program area ìHumans and Technologyî at Futura. His research interest is focused on work environment problems in computer supported work. He has contributed to books in the field, published a number of scientific articles, been active in ISO committees and has also been a board member of the Swedish Ergonomic Society.



Bengt Sandblad is an associate professor in human-computer interaction at Uppsala University. He is the head of the HCI department and research leader for the HCI program. He has for more then 15 years been active in HCI related research and published a number of scientific articles, contributed to conference programs etc. Today his research is partly focused on the relations between information systems development, efficiency of work and work

environment problems. Applications areas are e.g. administrative work, health care and traffic systems such as trains and ships.

