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Theme for my research
Using Technology for Real Time Coordination of Work

Overview and current field study
Work in control rooms, or so-called Centers of coordination, places demands both on humans and technology. The people working there have to be able to make quick decisions as well as be alert during less busy times. The work has to be coordinated within the group, since the operators are much depending on each other's work. This places special demands on the technology; it should be fast, trustworthy and easy to manipulate so that the complexity of the work is reduced. This type of work has been a source of interest in the research area of Computer Supported Cooperative Work, especially so since the needs for real-time coordination is great in these settings (Heath & Luff, 1991; Schmidt & Simone, 1996; Suchman, 1996).

SOS Alarm is a company that is responsible for managing the telephone calls made to the emergency number 112 in Sweden. They have 20 centers covering Sweden. My thesis present an overview of the SOS operators work; how they coordinate the information and tasks between them; how the technology supports that work (Normark, 2002). The study concerns a fully computerized setting, compared to many other studies of centers of coordination that are not. There are four issues that seems to be common and I discuss their influence on the work:

- Time constraints
- The problems/effects of distributed work
- The work is unpredictable, complex
- Needs for real-time information exchange

The main focus for my research is to understand how people bridge these problems and what that could mean for the design of new coordinative technologies.
The study's main results are a description of the work practice and technology at two centers, implications for design of a new computer aided dispatch system that is currently developed at SOS Alarm and general design ideas for control rooms.

Background
The theme for my dissertation was founded during the first part of my Ph.D. studies at the Center for Tele-Information at the Technical University of Denmark in Copenhagen. During a 15-month project, I studied technology use and coordination in between air traffic controllers at Copenhagen airport. I did and do my research mainly in the tradition CSCW, where my

contribution lies in workplace studies of technology use and cooperation. Since the research area of CSCW started in 1986, there has been a lot of effort devoted to understanding how people organize their working together. Schmidt (2000) writes:

> *"The primary role of workplace studies in CSCW is thus to dismantle the common-sense conceptions of cooperative work, take them apart, unpack and disclose the hidden practices of articulation work, and thus give us access - analytically and conceptually - to the intricate ways and means of the production of social order in cooperative activities."* (p. 145)

My main interest is in so called centers of coordination, workplaces where real time information about the state of work necessarily needs to be coordinated in order for people to do their work. This could e.g. be air traffic controllers or SOS call-takers, but also people working in a newsroom at a daily newspaper.

Methods and theoretical background
The CSCW-area is multidisciplinary where a rich variation of methods and theories are included. Often, several theories may influence the analytic work and I am counting on that it will be my case. Ethnomethodological perspectives as well as earlier field studies of work and technology use have inspired my ethnographic workplace studies. I use video recordings, tape recordings and notes for interviewing and observing the practitioners. To understand the technology in the setting, I study manuals, blue prints etc. The purpose is to understand nuances that will only come forward through a thoroughly investigation of work, finding issues that may even be hidden to the practitioners themselves.

References:
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