INF5260 Project Description

Mobile Work – Mobile ICT Supporting Secondary Working

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1 Introduction

This study will explore mobile work – focusing on workers that might use mobile ICT to support their secondary working task. Nurses, home-helpers, construction workers, electricians, drivers, all these, have primary working tasks that do not depend on ICT. For examples, nurses and home helpers primary task is to nurse sick and take care of people in need of nursing, while the main task to construction workers is to build houses, buildings and constructions, and, of course, the drivers primary task is to drive. Strictly speaking, the majority of these workers do not even need technology to perform any of their working tasks. But, mobile ICT might be useful if it support or enhance communication, collaboration, and current tasks.

By examining three different occupations, each with different mobile patterns and working tasks, we examine the understanding of context of use of mobile ICT. The three occupations are:

- Nurses

- Home health-care

- Construction workers

First, we will take a close look at the term "mobile work". Mobile patterns, primary and secondary working tasks, communication and collaboration will be issues that will receive a lot of attention. Efforts in understanding the mobile work will both be based on literature study and our own experiences and knowledge about the occupations in the study.

On a brighter note, the context of use has gradations of many aspects. For the moment we have found some relevant aspects in our cases. These aspects like culture, novice users, improved quality of work, information and knowledge sharing, motivation of use, work control and design of ICT services, might be of interest and relevance of mobile work on a broaden picture.

2 Cases

2.1 Nurses

This case examines mobility among nurses, secretaries and physicians at the surgical department at the University Hospital for North-Norway (UNN). More specific, we try to investigate if we can improve collaboration and coordination among healthcare professionals by using mobile information technology? If so, what are the critical factors? Which activities are suited for computer support?

This case is based on ongoing work with the UNN. Topics for discussion are: "Unwanted" mobility caused by an attempt at bridging discontinuities, problems with using modalities of mobility (such as local, micro, wandering, etc) as a means for providing inputs for systems design for actual applications, identifying and ranking primary and secondary working activities and finding out how these activities might tie up human resources (vision, hearing, hands, fingers, attention, etc).

2.2 Home health-care

This case will investigate the use of mobile technology (mobile phones) for use in home health care. Current mobile phones is not just phones, but also small computers designed for message based communication. One challenge is to make employees with no technology background to use such devices to improve intra-group communication.

The target group chosen is home health care. Multiple professions need to interact in order to supply the necessary services to their patients. Home health care is also a 24 hour a day activity, based on shifts. It is crucial that all information is updated on regular basis, and made available to all persons taking active part in the caretaking.

2.3 Construction workers

In this case the main focus will be on the knowledge process among construction workers at a building site. The aim is to give some answers of the following question:

How can mobile computers support and improve the knowledge processes of the construction workers?

2.4 Context of use

The different cases have different context of use. However, they share the following characteristics:

- High degree of mobility.
- High degree of tacit knowledge and work based on experiences.
- Novice ICT users.

3 Method

- Discussions of the reading material in this course.
- Literature study.
- Field study.
- Prototyping