

# Mind Your Own Business

## Searching for Support for Information and Interaction Overload

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### 1. INTRODUCTION

Working in the knowledge sector means dealing with increasing amounts of information, technology and people. Trying to cope with this situation can be stressful, and the tools to help us are often not adjusted to the terms of life in the Internet age. Departing from a study of a group of IT consultants, this poster advocates the need for ICT systems that address the whole spectrum of problems concerning 'overload' with respect to both information and interaction.

### 2. OVERLOAD

The explosive innovation rate of new information and communication technology (ICT) is the engine of a rapidly growing knowledge sector that offers wonderful and exiting careers for many people, but these jobs can also be stressful with long working hours and high demands on constant learning. For people in the IT-sector, technology itself is a driving force for the demand on learning, e.g. learning new hardware, software and ICT-mediated work practices, (Magnusson et al. 2000). Furthermore, the knowledge worker must maintain large personal networks of people, including colleagues, clients, experts, acquaintances and friends.

This problem is sometimes referred to as information overload, i.e. the situation where a person's cognitive capability is insufficient for dealing with the information presented to her (Hiltz & Turoff 1986).

This problem, to a large extent created by ICT, can also be approached with ICT systems. Viewing it as being strictly an information overload problem, has resulted in solutions that highlight the need for structure and organization for the individual user. These solutions often draw on an office-metaphor, where concepts such as directories, folders and desktops are dominating. We believe that a large portion of the overload problem is not related to information itself, but rather to processes of transaction and interpretation of information, processes that involve interaction with other people.

Ljungberg & Sorensen (2000) set the focus on these processes when they introduce and discuss the notion of interaction overload. They say:

*"Interaction overload is a concept characterising a mismatch between the demands of the individual to interact, and the person's co-operative preferences"*

Adding the focus of interaction means shifting towards a more social and collaborative problem-view rather than a purely individual. This duality between information that needs to be codified and stored and interaction that requires infrastructural and situated contextual support, has also been discussed in the field of Knowledge Management (KM). Swan et al. (2000) and Snis and Sorensen (2000) advocates that these aspects must be addressed together rather than separated.

### 3. INTERACTION AT SEMCON DATA

A study involving 6 IT consultants, conducted at Semcon Data was designed to explore the conditions and

needs concerning learning, collaboration and interaction for the workers. The results highlighted two important aspects of everyday work.

Time pressure: High work-pace and long hours, at work and at home, often resulted in irrational, time-consuming and redundant solutions to trivial problems

Alienation of consultants: The distributed and mobile nature of client-based work effectively obstructed informal collaboration and knowledge sharing.

Together these aspects increased the risk of lowering the priority on learning and development for both individuals and organization.

#### 4. BRAINWARE

There is at present several software that addresses the overload problems from a somewhat different angle than traditional office-metaphor systems.

We choose to label them *brainware*, referring to the somewhat "neural" metaphor that guides the structure and visualization of information. Products such as WebBrain™, MindManager™ and Desk Brain™, allow the user to relate and interlink nodes of information, (i.e. documents, file's and webresources), into dynamic structures that can be visualized by charts resembling "mind-maps". Furthermore, the nodes of information are sometimes referred to as "thoughts".

#### 5. INTEGRATED SOLUTIONS

There are of course no silver bullets that will make the problems go away. However we argue that information-based metaphors such as desks and folders are less powerful in a time where knowledge and interaction needs more attention than information. Focusing on interaction means introducing elements of mobility and collaboration and the situated contexts in which it takes place, and consequently the problems relating to different interpretations and references for the persons involved in the interaction.

Managing interaction will always involve the trade-off between spending time on recording ephemeral

communication or risk losing valuable knowledge (Ljungberg & Sorensen, 2000)

We believe that the neural structure of brainware applications constitutes a good foundation for creating systems that uses an integrated approach to management of information and interaction. Existing IT-support, to a large extent addresses one of these aspects, and not the other. Another important challenge for the design of integrated systems is to provide support for both individual and collaborative work.

A successful integration of interaction and information management, performed by individuals or teams raises several further demands on functionality and services of such systems. For instance, more flexible ways of relating information, but yet higher degree of structure within each document, scalable solutions for a mobile worksituation, including various devices, (e.g. PC, PDA, cellular phones etc.), flexible and automated support for knowledge management and project-decisions. Other aspects of great importance are organizational cultures that will ensure the necessary motivation for doing the work that still has to be done.

#### 6. REFERENCES

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