Chapter 4.7
A Mobile Portal for Academe

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INTRODUCTION

Today, many working environments and industries are considered as knowledge-intensive, that is, consulting, software, pharmaceutics, financial services, and so forth, and the share of knowledge work has risen continuously during the last decades (Wolff, 2005). Knowledge management (KM) has been introduced to overcome some of the problems knowledge workers are faced when handling knowledge, that is, the problems of storing, organizing, and distributing large amounts of knowledge and its corresponding problem of information overload and so forth (Maier, 2004).

At the same time, more and more people leave (or have to leave) their fixed working environment in order to conduct their work at changing locations or while they are on the move. Mobile business tries to address these issues by providing (mobile) information and communication technologies (ICTs) to support mobile business processes (e.g., Adam, Chikova, & Hofer, 2005; Barnes, 2003; Lehmann, Jurgen Kuhn, & Lehner, 2004,). However, compared to desktop PCs, typical mobile ICT, like mobile devices such as PDAs and mobile phones, have some disadvantages, that is, limited memory and CPU, small displays and limited input capabilities, low bandwidth, and connection stability (Hansmann, Merk, Niklous, & Stober, 2001).

So far, most of the off-the-shelf knowledge management systems provide just simple access from mobile devices. As KMS are generally handling a huge amount of information (e.g., documents in various formats, multimedia content, etc.), the management of the restrictions described becomes even more crucial (Berger, 2004).

Based on requirements for mobile applications in KM, an example for the implementation of a mobile knowledge portal at a German university

is described. The presented solution offers various services for university staff (information access, colleague finder, campus navigator, collaboration support). With the help of this system, it is possible to provide users with KM services while being on the move. With its services, it creates awareness among remote working colleagues and hence, improves knowledge sharing within an organization.

MOBILE KNOWLEDGE MANAGEMENT

A mobile working environment differs in many ways from desk work and presents the business traveller with a unique set of difficulties (Perry, O'Hara, Sellen, Brown, & Harper, 2001). Throughout the last years, several studies have shown that mobile knowledge workers are confronted with problems that complicate the fulfilment of their job.

Mobile workers working separated from their colleagues often have no access to the resources they would have in their offices. Instead, business travellers, for example, have to rely on faxes and messenger services to receive materials from their offices (Schulte, 1999). In case of time-critical data, this way of communication with the home base is insufficient. In a survey about knowledge exchange within a design consulting team, Bellotti and Bly (1996) state that it is difficult for a mobile team to generally stay in touch. This is described as "lack of awareness." It means that a common background of common knowledge and shared understanding of current and past activities is missing. This constrains the exchange of knowledge in teams with mobile workers. In addition, mobile workers have to deal with different work settings, noise levels, and they have to coordinate their traveling. These "logistics of motion" lower their ability to deal with knowledge-intensive tasks (Sherry & Salvador, 2001) while on the move. The danger

of an information overflow increases.

Mobile knowledge management is an approach to overcome these problems (e.g., Berger, 2004; Grimm, Tazari, & Balfanz, 2002,). Rather than adding to the discussion of what actually is managed by KM-knowledge workers, knowledge, or just information embedded into context–in this chapter, mobile KM is seen as KM focusing on the usage of mobile ICT in order to (Berger, 2004, p. 64):

- provide *mobile access* to knowledge management systems (KMS) and other information resources;
- generate *awareness* between mobile and stationary workers by linking them to each other; and
- realize *mobile KM services* that support knowledge workers in dealing with their tasks.

THE CASE OF A MOBILE PORTAL AT A GERMAN UNIVERSITY

In recent years, the German universities, which are financed to a large extent by public authorities (federal states and federal government), have been severely affected by public saving measures. As a result, lean, efficient administrative procedures are more important than ever. KM can help to achieve these objectives. One example is to provide easy access to expert directories, where staff members with certain skills, expertise, and responsibilities can be located (e.g., "Person X is responsible for third-party-funding") in order to support communication and collaboration.

However, there are several reasons why the access to information of this type is limited at the University of Regensburg. First, there is the hierarchical, but decentralized organizational structure. All together about 1,000 staff members are working in 12 different schools and about 15 research institutes at the university, serving for

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