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## Chapter XII

# A Mobile Portal Solution for Knowledge Management

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## Abstract

*This chapter discusses the use of mobile applications in knowledge management (mobile KM). Today 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. At the same time, mobile work is getting more and more knowledge intensive. However, the issue of mobile work and KM is an aspect that has largely been overlooked so far. Based on requirements for mobile applications in KM an example for the implementation of a mobile KM portal at a German university is described. The presented solution offers various services for university staff (information access, colleague finder, campus navigator, collaboration support). The chapter is concluded by outlining an important future issue in mobile KM: the consideration of location-based information in mobile KM portals.*

## Introduction

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Today many working environments and industries are considered as knowledge intensive, that is, consulting, software, pharmaceutical, financial services, and so forth. Knowledge management (KM) has been introduced to overcome some of the problems knowledge workers are faced by 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. Hence, KM and its strategies aim at improving an organization's way of handling internal and external knowledge in order to improve organizational performance (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 (ICT) to support mobile business processes. However, compared to desktop PCs, typical mobile ICT, like mobile devices such as PDAs and mobile phones, have some disadvantages (Hansmann, Merk, Niklous, & Stober, 2001):

- Limited memory and CPU – Mobile devices are usually not equipped with the amount of memory and computational power in the CPU found in desktop computers.
- Small displays and limited input capabilities – for example, entering a URL on a Web-enabled mobile phone is cumbersome and slower than typing with a keyboard.
- Low bandwidth – in comparison to wired networks, wireless networks have a lower bandwidth. This restricts the transfer of large data volumes.
- Connection stability – due to fading, lost radio coverage, or deficient capacity, wireless networks are often inaccessible for periods of time.

Taking into account the aforementioned situation one must question whether current IT support is already sufficient in order to meet the requirement of current knowledge-intensive mobile work environments. So far, most of the off-the-box knowledge management systems are intended for use on stationary desktop PCs and 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 above become even more crucial. In addition, neither an adaptation of existing knowledge services of stationary KMS nor the development of new knowledge services according to the needs of mobile knowledge workers is taking place.

The goals of this chapter are to identify the main issues when mobile work is meeting knowledge management. In particular the focus lies on mobile knowledge portals, which are considered to be the main ICT to support mobile KM. Further on the applicability of these suggestions is shown with the help of a mobile knowledge portal that was implemented at a German university.

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