M-learning: Ontology Platform

Boris Basilev, Diana Ilina
Nizhny Novgorod State University
Nizhny Novgorod, Russia
borisyaroslavl@yandex.ru, ilina.diana@gmail.com

Abstract

Creating a software platform to quickly create specialized knowledge on different fields and spheres of human activity to which the user who decides their typical professional tasks in any place and at any time ("field") can easy online access through mobile devices communications (cell phones, Smartphone’s and communicators).

Information provided by the knowledge base must be complete, credible, and relevant and allows you to find solutions to problems in a typical range of professional situations.

Provides users with information should have the form and structure suitable for rapid and clear perception. In this case the user interface of mobile devices, providing data entry, query and display of information found should be adapted to the mobile client device and the requirements of professional situations.

For the first time formulated and solved the problem of creating a platform for building knowledge bases on the selected subject areas that can help users to solve problems he had during the actual operational activities in a state of mobility (on the go - without the distraction of work).

A software implementation of an interactive knowledge base with mobile access, which includes the server side and client software that is installed on the user's mobile device and an editor that allows developers to build the knowledge base and interface interaction with it.

The information in the database is described using a special set of metadata and attributes, ensuring fine-tune user's search query and output the most relevant information (the output of a small-sized cell phone screen is only necessary information in a convenient form for rapid analysis). The client program on the need to use the multimedia capabilities of mobile devices (the output of information in the form of text, images, audio and video), and communication capabilities of these devices (the possibility of data transmission on GPRS, EDGE, Wi-Fi, 3G channels, the possibility of a voice connection, the exchange of SMS as well as connecting peripheral devices with Bluetooth and other similar communications technologies Short Range)

INDEX TERMS: MOBILE LEARNING, ONTOLOGY, MOBILE SERVICE.