Phone Mobile Learning Model and Platform in the Construction of Research

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Abstract. This paper analyzes the phone-mobile-model learning of the opening education, concentrate on the study of phone-mobile-model learning and the construction of the phone mobile learning platform. The purpose is to promote and enrich student’s learning for the phone mobile learning that can meet the needs of students to learn better, promote the opening education to serve society better.

Keywords: M-learning, Mobile phone, Model, Platform.

1 Introduction

The data statistic by Ministry of Industry and Information Technology of China (MIIT) shows that the number of mobile phone users which accounts for 47.3% of the population which has reached 633.84 million in china by November 2008. The number of mobile phone users reached 3 billion, and china account for 21% of global users. Mobile phone is no longer a simply tool for query and transmission message but become an important tool for mobile learning by communication systems, Bluetooth and 3G video phones.

M-learning characterized by realization of "Anyone, Anytime, Anywhere, Any style" (4A) under the freedom of learning is a new stage of development of the remote education. Mobile Learning relies on the relatively mature wireless mobile networks, the Internet and multimedia technology. In this case, students and teachers can achieve interactive teaching activities more conveniently and flexibly by using mobile devices (such as wireless Internet access for portable computers, PDA, mobile phone, etc.) and moving the teaching server. Phone learning possesses all the characteristics of remote learning, including flexibility, portability, interactivity, personalization, pervasive and so on. As long as they realize their phone devices wireless connectivity, they will be able to learn freely. The development of mobile learning will enable students to study more freely in the remote education. From the performance of mobile phone, it can display and play the text, MP3, pictures, etc, run a simple interactive learning software; also can play video, run a strong interactive multimedia

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learning software which meets the needs of the learning of handheld devices. Besides calling, mobile phone possesses the most features of PDA, especially the Function of personal information management and wireless data communications based on the browser and e-mail, to meet the needs of handheld devices learning. It has functions of short message service (SMS), sending and receiving e-mail, Internet browsing, information management, a variety of commercial applications, communications device (Web phone web-telephone), multimedia playback editing features, opening and editing office documents.

2 Phone Mobile Learning Model

2.1 Phone Mobile Learning Goes into the Online Access Model from the Short Message of Cellular Phone

In the past, mobile phone was used for SMS and calls. Learning based on SMS is the simplest, most efficient format. Through the short message, learners, between learners and teachers, between learners and the Internet server can be achieved between the limited characters of the transmission. To take advantage of this way, learners can be realized through a wireless mobile networks and the Internet communication between and complete a certain teaching activities. Short messages are generally divided into three categories: SMS (Short Messaging System, Short Message Service), EMS (Extension Messaging System, Enhanced Message Service), MMS (Multimedia Messaging System, Multimedia Messaging Service). As to the short message, its data communication is interrupted and can not be real-time connectivity, so interactivity is very poor. With the development of Internet and its 3G technology, online access to learning emerges.

Learner can access to the Internet and WAP according to their own needs, i.e. at any time, at any place by mobile phone, to access to support mobile learning educational site for learning. Learners can browse a lot of information resources, including databases, digital libraries, broadcast media, and also can use online applications and software libraries and other software resources.

2.2 The Technical Barriers of Phone Mobile Learning to Be Overcome

Currently, 3G networks are not generally applied and the charges for mobile communications are higher. All of these add substantial economic burden to learners. Moreover, the expression of short message is limited, generally only for text, video and audio as well as the animated way. And the content is very monotonous. Limited by the phone features, Phone can not effectively reflect the learning content in time. The speed of phone mobile learning network is very slow, which limited the online learning.

The bandwidth of network is difficult to ensure ready access to mobile learning server, and the traffic restriction affect the effectiveness of phone mobile learning.