DROID M-Learning

Swapnali Gugale   Amruta Bafna   Neelam Jain   Rashmi Chhallani   Parag Achaliya

Abstract – **Now a days, educational system has grown and this progression will continuously offer new and interesting things in the learning environment. Currently available E-Learning systems were specially developed for laptops and desktop computers but not for the mobile phones which lack the ability to provide a complete omnipresent learning environment. The evolution of today's mobile devices increases the number of mobile applications developed, and among them the mobile learning applications. Mobile hardware and software plat-forms allow running of faster and richer applications. However, the ability to provide a complete omnipresent learning system on the 3G (3rd Generation) mobile device will offer powerful collaborative and interactive learning opportunities. This paper presents the main steps in development of a distributed mobile learning application for Android. The client application communicates with the server using Web services.**

Index Terms - **3G Mobile, Android, E-Learning, M-Learning, Web Services**

I. INTRODUCTION

Different ways of communication have enabled growth in technology and availability of mobile and wireless devices. These mobile technologies have enabled a new way of communicating. Mobile devices are part of normal daily interaction. The cost of mobile access to the internet is steadily decreasing. People are always connected to geographically dispersed groups. In the recent years mobiles have become the part of life and most of the people could afford the cost. [2]

One recent significant change in the learning environment is demand in mobility, mobility like in a physical space, technology, conceptual space, social space. The research aims towards implementing education through mobile devices. Like Desktops and Laptops are primarily used for e-learning, devices such as cell phones and PDA's are used for Mobile learning (M-learning). This helps in reducing equipment cost in delivering education. The trend toward the convergence of applications, the ubiquitous ness of mobile devices, and continuing demand for smaller and more powerful devices indicated that these technologies are now indeed the mainstream. Mobile learning has strong portability. It will be more effective and entertaining to use mobile devices as learning media. [2]

There are many different ways of attempting to engage the learner through online learning environments. Technology has great ability for improving the quality of education to students; however, if created technology is not designed with a user centric approach, it will as anticipated fail to achieve the desired effect.
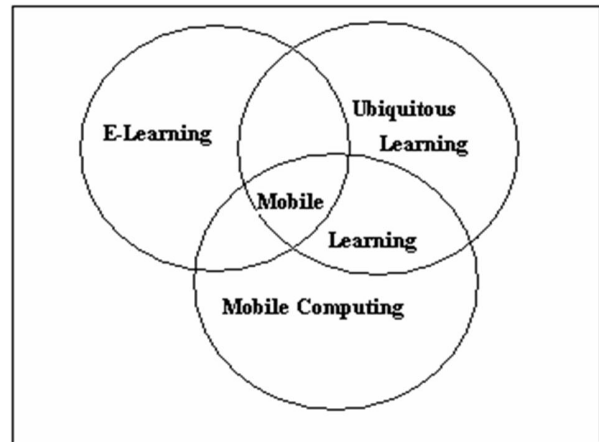

Fig: 1.1 M - Learning.

Due to several limitations of traditional classroom environments, educational institutions are moving away from traditional approaches and attempting to find alternative ways to engage the learner. The costs to build, develop, deploy these tools may put a strain on already stretched educational budgets. The cost incurred to train, build and develop custom software to suit educational tools would usually exceed the allotment for information technology. Therefore, the 3 purpose of this study was to develop a low cost educator friendly and mobile oriented learning environment centered on ease of use and interactive technology for the educator and with the learner as the focus on the mobile learning environment, so that the users can gain access to the educational content anytime at anyplace.

Basic Concept of application

Mobile learning (m-learning) applications which support the ubiquitous learning are developed using wide variety of languages, platforms and technologies. Each application developed has their own implementation strategies and specific features in terms of user interface, targeted mobile devices and interoperability features. The mobile application development depends mainly on these characteristics and influenced by their underlying platform for running these applications. Typically, a mobile learning system requires a

Mobile Learning device, an m-learning application and m-learning content. The m-learning application framework helps to run diverse mobile-learning content. The m-learning content may be of simple text type to complex multi-media content with image, audio and video file formats. The m-learning application that runs on mobile device may be a dedicated stand-alone application, a client – server model or mobile Web browser based application.

Android, an open-source mobile operating system and application framework supported by Google is a recent addition in the mobile application platform. By providing a pen development platform, Android offers developers the ability to build extremely rich and innovative applications with a rich set of User Interfaces, support for broad range audio and video file formats. Developers and mobile handset manufacturers around the world has embraced this new platform due its opens-source and diverse application development and running capabilities with programming language as Java.

Modules in application

The prototype m-learning application developed consists of three activities:
- Module Selection;
- Course Selection;
- Quiz Question & Answer Choices

The user/learner interface is simple and intuitive, without much graphics and drawings. It will reduce the amount of memory required by the application and reduces the time of development. The original version has been designed with interactive and user-friendly icons and menus. The application targets the mobile devices with touch screen, but can be accessible by any kind of device running Android platform.[1]

II. MATH

By providing multiple paths for learning increases the chances of success.

$$\text{M-Learning} = f\ \{Tm,\ sp,\ le,\ If,\ t,\ Mv,\ Md\}..... (1)$$

- Tm – Time; whereas t was discontinuous and discrete for previous paradigms of learning (e.g. mainly whenever in classroom), for m-learning time during which mobile learning can take place may be continuous
- sp – Space; the space is in m-learning is not a real place like a classroom, it represent more a virtual space;
- le – Learning environment is different in m-learning because the "anytime, anywhere" capabilities of mobile device encourage learning experience outside of classroom;
- If – Informality; the information, the specific educational themes and chosen topics covered are now structured in a completely different way and follow different rules and priorities. The learner usually shifts from topic to topic and from discipline to discipline, in what might appear as a chaotic pattern;
- t – Technology; this parameter is quite complex. It encompasses all technological aspects and momentary characteristics of both the handheld device and the surrounding environment (i.e., services available, antennas, repeaters, external devices within reach etc.);
- Mv – Motivation; this parameter contains as a conglomerate of the learner's abilities, prior knowledge, preferences, momentary attention etc. In m-learning most of students are learn more when they are do something just in play;
- Md – Method; the method is a conglomerate of all parameters related to delivery of and interaction with content. These may include pedagogy, philosophy as well as technical and logistical aspects such as method of presentation (or assessment).

III. PROPOSED SOLUTION WORK

The challenge address by mobile was ability to get an instance response by prospective learners and contact them immediately or at least within the same day.

Pointed out from our research that there are many applications but there are some issues related to Moodle. The first big issue is the fact that Moodle is not fully developed to cope with big projects. While it may be useful for colleges or universities of small to medium size, the system might not work efficiently with larger schools or organizations. This can be troublesome for students when they are trying to take quizzes or tests, or just simply trying to access the course content. The website can also shut down on occasion, blocking the opportunity for students to access course materials

We have studied many research papers and also addressed many problem but mention above are the major issue so we will try to solve problem related with Moodle, deliver and ULE.

In order to help the learner who is newer for the m-learning application can access lessons, video clips and audio libraries from anywhere and anytime, including public places and moving buses and trains

IV. SYSTM IMPLEMENTATION
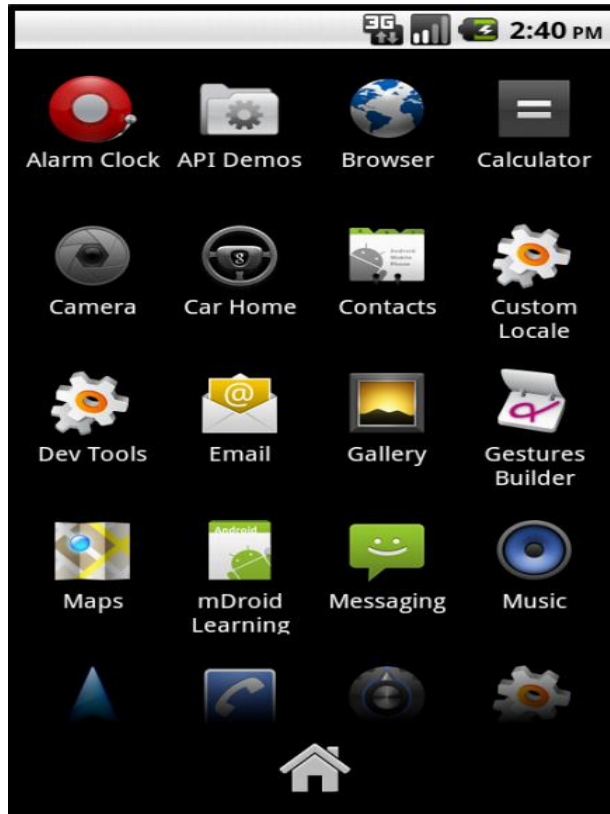
education by using the mobile devices, in this research. For this we have developed a graphical user mobile environment that provides a new way of learning mode and adaptive to learner's learning style. With the development of mobile educational environments, it would be easy and convenient for the students to carry out course contents in anytime and anywhere, so that it provided more opportunities to study course contents in extra-curricular time and that apparently improves effect of interest of learning. The utilization of knowledge such as course contents, reference materials and discussions have increased due to learning through mobile devices in addition to traditional teaching mode.

ACKNOWLEDGMENT

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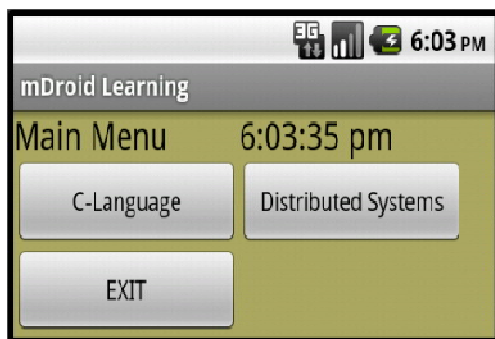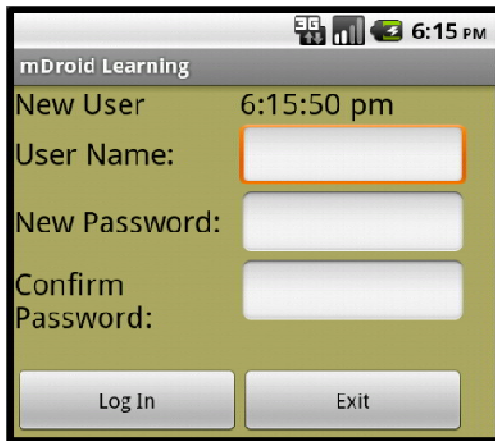
V. CONCLUSION

We intended to provide an idea for the learner- centered

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