An Innovatic study for cloud computing through mobile learning

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***Abstract*: With mobile learning (m-learning), the learner only needs to have a Smartphone and access to the internet; with that, they can access all the resources they need to study without having to carry books around with them. The introduction of new technology in m-learning such as ambient intelligence, location-based learning, and learning implants implies that mobile learning has a bright future**

Keywords: **M-learning, E- learning**

1. Introduction to cloud computing

Cloud Computing has been one of the most booming technology among the professional of Information Technology and also the Business due to its Elasticity in the space occupation and also the better support for the software and the Infrastructure it attracts more technology specialist towards it. Cloud plays the vital role in the Smart Economy, and the possible regulatory changes required in implementing better Applications by using the potential of Cloud Computing.

2. Introduction to **Mobile Lear**ning

Mobile learning is a system which is implemented for education using cloud computing. The main objective of Mobile-Learning is that the learners can get the knowledge from the centralized shared resources at anytime and anywhere they like to read that too at free of cost. Mobilelearning is a system where one can learn through any source on topics of his choice without the need of storing everything in his device. As-you-pay and that much you can use the services from the cloud data centers for learning selected topics over mobile phone even you in a small village or remote area. . For example, if student want learn a JAVA technologies from his agricultural land and works. Mobile learning has many different definitions and is known by many different names, like M-Learning, ULearning, personalized learning, learning while mobile, ubiquitous learning, anytime / anywhere learning, and handheld learning.

mobile learning is, "any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies".

3. Mobile Tecnologies in mobile learning

Mobile technologies are an attractive and easy means to maintain literacy skills and gain constant access to information. They are affordable, can be easily distributed and thus hold great potential for reaching marginalized groups and providing them with access to further learning and development.

Mobile devices and personal technologies that can support mobile learning include:
- E-book
- Handheld audio and multimedia guides, in museums and galleries
- Handheld game console, modern gaming consoles such as Sony PSP or Nintendo DS
- Personal audio player, e.g. for listening to audio recordings of lectures (podcasting)
- Personal Digital Assistant, in the classroom and outdoors
- Tablet computer
- UMPC, mobile phone, camera phone and Smart Phone

4. Introduction to E-Learning

E-learning is a distance learning mode based on new multimedia technologies and the Internet, which allows one or more persons to form from their computer. Multimedia materials used can combine text, graphics, sound, image, animation and even video . Many researchers consider the m-learning just as a natural evolution of e-learning, which completes a missing piece of the solution while leveraging the main strength of mobile ICT, or as a new stage of distance learning (dlearning) and e-learning. Historically, the d-learning has over a hundred years of experience and tradition. Its main feature is the separation in time and space, the learner and the teacher. The eLearning provides new distance learning methods based on information technology and the Internet.

5. How M-Learning differ from E-learning

E-learning plays an important role in the educational growth of any nation. It also offers opportunities for developing nations to enhance their educational development. It can also plays a critical role in preparing a new generation of teachers, as well as upgrading the skills of the existing teaching force to use 21st century tools and pedagogies for learning. So it is the changing trend in education. The modern technologies particularly the internet made education no longer limited to the four walls of the class room. E-learning comprises all forms of electronically supported learning and teaching. The information and Communication systems, whether networked or not serve as specific media to implement the learning process. The term will still most likely be utilized to reference out-of classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum. Mobile learning combines E-learning and mobile computing. Mobile learning is sometimes considered merelyan extension of E-learning, but quality M-learning can only be delivered with an awareness of the special limitations and benefits of mobile devices. Mobile learning has the benefits of mobility and its supporting platform. Mlearning is a means to enhance the broader learning experience. M-learning‖ is a powerful method for engaging learners on their own terms. Mobile technology in word open various ways for new educational technologies aimed at fulfilling the country's educational needs. There are various ways to use mobile phones for enhancing learning. Mobile phone plays an important role in our day-to-day lives in various purposes. One of the important purposes is learning. Mobile learning, as a novel educational approach, encourages flexibility; students do not need to be a specific age, gender, or member of a specific group or geography, to participate in learning opportunities. Restrictions of time, space and place have been lifted

6 Characteristics of mobile learning
Mobile cloud learning has the following characteristics.
1. Storage and sharing: Learning outcomes and resources can be stored in the "Cloud," which provides almost unlimited store and computation capacities. Documents can be commonly edited and shared in the "Cloud," such as services provided by GoogleDocs, Live Skydrive, and Office Live.
2. Universal accessibility: Learners can study as long as they have access to the network. Mobile cloud learning also makes a low-cost access terminal possible, because software, applications, and data are all operated in the cloud servers. This improved accessibility can greatly benefit developing regions.
3. Collaborative interactions: Learners can cooperate anywhere in the "Cloud." From social learning perspectives, they can collaboratively build common knowledge through frequent and convenient interactions.
4. Learner centered: Mobile cloud learning is heavily people-oriented, which meets the individual needs of learners. Learners in the "Cloud" select suitable resources and can track their learning progress and outcomes.

7. Applications of M-learning for Education
The World Wide Web is the most successful educational tool to have appeared in a long time. It combines and integrates text, audio and video with interaction amongst participants. It can be used on a global scale and is platform independent. While largely an asynchronous medium, it can be used also for synchronous events. It is not surprising, therefore, that trainers, lecturers, distance education providers and teaching institutions at all levels are increasingly using the Web as a medium for delivery. The statistics showed that: The number of Americans accessing the mobile web went up 107% last year; Mobile Web Access is growing around 15-20% a month; Mobile internet growth is 8x greater than PC-based growth; and Mobile social networking sites are getting more popular, mobile Facebook has 4 million users a day. In this section we will map the evolution from the wired virtual learning environment of today, to the wireless learning environment of tomorrow. The studies should evaluate each of these technology models on the six major dimensions of distance education provision: The provision of course content to off-campus students The provision of feedback to off-campus students The provision of student support services to offcampus students Links to the WWW and other resources Student-to-student interactivity Student to tutor and institution interactivity. Each of these dimensions should be analysis and evaluate on a four point grid for decision makers: Student user friendliness, Didactic effectiveness, Technical feasibility, Cost effectiveness. Mobile devices, and their technologies and systems, are eroding established notions of time as a common structure that had previously underpinned social organization and the consensual understanding of the world. Time-keeping is being replaced by the ‗approx-meeting 'and the ‗multimeeting‗, ‗socially negotiated time‗, the ‗micro coordination of everyday life'alongside the ‗softening of schedules 'afforded by mobile devices and Nyiri says, ―with the mobile phone, time has become personalized‖. Whereas previously our social and business relations had to be organized and synchronized by absolute clock time, now mobile technologies allow us to renegotiate meetings and events on-the-fly. However, Basic mobile phone features are: Making and receiving calls; Sending and receiving text messages; and Basic office tools e.g. calculator. Advanced mobile phone features include: Bluetooth; Camera capable of taking stills and more commonly now video; e-book readers, games; Recording audio; GPS / location aware; and Web browser to connect to the internet.

8. Comparison for E-Learning and –Learning

E-Learning	M-Learning
Lecture in Classroom or Internet Lab	Learning anywhere, anytime
E-mail to Email	Instantaneous messaging
Private Location	No geographic Boundaries
Travel time to reach the internet site	No travel time with wireless internet connectivity

Conclusion

Cloud computing has also reduced the cost associated with learning, and has made learning more thought-provoking. . Educational institutes are encouraged should adopt the mobile learning through cloud computing technology if the education system is to evolve. It is through this technique that different people can be involved in life-long learning in efficient, effective and time saving manner. Our future research aims to define and develop a semantic web tool for the description of a learning object structure using XML scheme based on an anthology to facilitate the creation and sharing of these items with the content XML via the Mobile Cloud Computing environment to overcome the limitations and disadvantages of the traditional method of m-learning.

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