Mobile Learning : A Paradigm Shift Towards A Learning Process

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Abstract:
Learning is a lifelong process that begins at birth and continues until death. Education and training is the process of passing on one generation's wisdom, information, and abilities to the next. In the current situation, we have observed that children and young adults are more receptive to mobile phones. M-learning is the process of acquiring any knowledge or skill utilizing mobile technologies, anywhere and at any time. When people are not at their workplaces or classrooms, they engage in m-learning. M-Learning" refers to the use of mobile devices such as handheld and tablet computers, MP3 players, smartphones, and mobile phones to support the learning process. Two important advantages of mobile learningare always connective and always available information on handheld devices that the learner and educator are always engaged in the information gathering process. Information is a very vital tool that gives strategic advantages to educators and learners. This document provides information about mobile learning, its capabilities, and its challenges.
Keywords:M-learning, mobiles, teaching.

I.   INTRODUCTION:

As it met Oct. 1999, during a computer-based training frameworks conference in Los Angeles, a unique current term–'M-Learning'–was used for the first occasion it met a specialized atmosphere. Mobile learning is a style of learning in which the student is not confined to a certain location and may access information from anywhere. This paper is mostly centered on the learner's mobility, as they can obtain information from a variety of sources at any time and in any location **[1].**To recognize and entitle online learning in our educational framework, we can say that M-Learning is a unique apparatus that has the potential to improve and sustain the old-style training technique, and it is rapidly becoming an essential piece of the training apparatuses used by each informational gathering. In this study, we categorizedM-learning from the viewpoints of several students. The key reasons for the popularity of M-Learning are its flexibility, cost, social engagement, reliability, technical advantages, ease of use, and pedagogical benefits. Mobile learning has been demonstrated in terms of physical qualities **[2,3]**, not in a specific location **[4],** learning type **[5],** and diverse locales **[6].** The study also looked into the specific issues that come with implementing mobile learning.

RELETED WORK:

Hand-held devices are very imported equipment that is now become the most effective tool that gives information that is always connective and always available. There are many servicesavailable on handheld devices that run on a remote server through a wireless network nowadays mobile computing plays an important role that making information is easily available and accessible to everyone. In the present scenario, cloud computing technology is mostly adopted for the future generation which can help to disperse information to students and educators to get their information according to their needs. In this review paper, I am highlighting the advantage of an M-learning model which is a very cost-efficient and powerful learning model it is the technologies that provide the resources and utilized their services by demand of users by utilizing the cloud with a wide range of services, formation, a faster processing speed, and longer battery life present the blend of m-learning with cloud computing technology which provide an effective and efficient way to provide the educational content to both the educator and student.

The prominent of the foundations accepted around classes of M-Learning inside its information technique. For the most part, the web is a present-day broadcasting device form of m-learning (Figure 1).

Figure 1: Internet as an M-learning broadcasting tool

Regularly, M-Learning is unmistakable as Internet-empowered learning, or intersection of instruction and the Internet, just as any utilization of PCs and the Internet to straightforwardness educating. The mechanical assemblies of M-Learning can contain substance move in various configurations over the Internet, an association of the instruction experience, and an interfaced network of amateurs placated planners and masters.

M-Learning shields a comprehensive expression of employments and techniques like web set information frameworks, Mobile gadgets set training frameworks, PC produced instructional exercise room, and numerical aggregate learning GroupWare bundles. M-Learning mollified is, for the most part, moved through Internet, intranet/additional net (Local Area Network/Wide Area Network), audial just as video, broadcasting or communicate, collective TV, DVD, and Compact Disk – Read Only Memory, and the stale to emerge Wireless Application Protocols (WAP).

In a minimal couple of more words:

1. M-learning is a modern teaching idea: It can comprise various as of the old learning thought. It would convey a most recent depiction of this new idea.

2. **Appropriation of numerical content:** It is a key sort of web-based learning. The client has the option to express what is web-based realizing and what isn't.

3. **The clarification spreads the climate on the net**: It implies that the net offers the learning air of the students additionally coaches. The climate stands apprentice related, in this way it can pitch away from the perspectives on ordinarily mentor inside's preparation in vogue instructional exercise room.

4. **Most recent thought of learning**: M-learning gives the circumstance planned to comprehend the lasting training standard additionally help to develop the further genuine information culture **[7].**

M-LEARNING ADVANTAGES:

1. Quick access to information:
Due to strong network connectivity a large amount of educational content over various sites, the learner can quickly ace the learning material of their need which the learner finds beneficial. The learning material is consistently correct, fresh, and updated.

2. M-learning reduces the gap of learning capability:
As it's a fact the learner has varying learning capabilities.some learners understand the course material quickly while some learners take some extra time to understand the topic, in M-learning the learner can save the studying material and can have the advantage of learning at any time and d at any place. So it reduces the gap between the quick learner and slow learner**[8].**

3. M-learning provides adaptability:
As M-learning provides the advantage to get information at any time and any place so the learner can ace the study material according to what they want, at which time, and at which place. So it provides of advantage of adaptability for the learner.

4. M-learning is a financially low budget learning process for learners and institutes/trainers:
From the point of view of a learner M-learning cuts the cost of traveling, staying at a particular place, and excess to learning material at an affordable price. So it is very economic and budget-friendly for the learner.

From the trainer/educator's perspective, it reduces the coat of fixed liabilities like paying to educators, building infrastructure, classrooms, and different commodities related to the classroom, canteen, etc.so it is very financially affordable to trainers/educators too.

5. M-learning provides integration

The most important aspect of M-learning is that it provides integration of various things like different course material related to different course streams, different languages, various universities trainer, and learners from various communities. So M-learning integrates knowledge from expertise, technology, and best resource utilization. (Figure 2).

6. M-Learning encourages learning by experience

Professional training extraordinarily designing instruction include troublesome subjects and each subject is related with its subject down to earth. To make these troublesome subjects additionally intriguing for the students, the subject is to be educated by very experienced or master coaches. Be that as it may, because of the globalization of training and intense deficiency of experienced staff, this trouble can be settled by e-learning. E-learning is by all accounts all the more engaging in this circumstance, as it can make troublesome subjects much simple, pragmatic, and intriguing. Likewise, there is a Chinese maxim "Let me know, and I will overlook. Demonstrate to me, and I may recall. Include me, and I will get it". This precept fits well in this situation. Studies had additionally demonstrated that ingestion and standard for the dependability of students are approx. 25% higher in m-learning contrasted with e-learning**[9].**

- **Blended Learning:**

It is a learning approach where the instructor teaches the learner with a combination of modern technical tools. It is a face-to-face interaction or we can say that the learner learns in the interactive environment through modern technology and software tools especially utilizing mobile devices. 'blended learning", is sometimes used in the same as "personalized learning".

- **M-learning Increases Social Learning:**

As education plays an important role in social development the main aim of education is personality development that leads to developing a healthy and educated society so we can say that the use of information technology in collaboration with mobile devices and modern learning technology, M-learning is beneficial to enhance the social learning.

- **Flexibility to Learner:**

M-learning is a new model following E-learning but while E-learning is confined to a fixed platform, M-learning gives a power of anywhere and anytime platform for the learning process that makes it flexible for the learning process.

- **Performance Support:**

As M-learning is a face-to-face interaction between the instructor and the learner so the learner can easily report their queries and get the result of their quires interactively. So M-learning is beneficial for both the instructor and learner to analyze their performance.

- **Extended Learning:**

It means that using a handheld or mobile devices with high-speed internet services learning process crosses many barriers. Using modern technological tools and software and with the help of mobile phones, a learner can learn anything, anytime and anywhere of their interest. It means that learning is not confined to location, course material, and without limitation of time.

Figure 2: M-Learning Advantages

7. M-Learning facilitates modeling and simulation
M-Learning encourages displaying and reproduction Modelling and re-enactment programming can make adapting truly fascinating, as the product advance learning through understanding.

CHALLENGES FOR M-LEARNING:
1.Connectivity: ForM-learning, the excess of internet network is very important. The learner can gain information easily if there is good network connectivity. In the world, there are many remote and rural localities where internet connectivity is very poor.this is the main condition that makes the learner unable to get the information timely.
2. Cost: the data cost should be affordable so that the learner from a lower economic background can excess the information at a low price.
3. Bandwidth: regular and quick streaming of data bandwidth played an important role. for this purpose, there is some general requirement like data format that should support mobile devices. A good memory should not be the sudden breakdown of the informational channel and educational content security is important so bandwidth management is also a key issue related to M-learning.

M-learning is very beneficial in sharing knowledge in different groups of learners with the most advanced technology. The innovation in modern technology is very important in m-learning model that provides strong architechture for delivering the right, quick, timely, and relevant information to the learner effectively and efficiently.

II.   CONCLUSION:

M-learning is currently the most valuable tool in the field of online learning. M-learning is thought to be a critical component in establishing a fresh drive to learn in young people, where more traditional teaching methods have failed. Due to the advent of mobile phones that combine PDA capabilities with cameras, video and MP3 players, and the ease of portability, the world of learning becomes more mobile, more flexible, and fascinating. What makes M-learning so exciting is that it encourages learners to travel between indoors and outdoors, and between formal and informal settings, allowing them to take the lead in some ways. If language learners' tastes and requirements are permitted to influence what and how they study, mobile technology has a clear role to play in achieving this goal. Learning takes place outside of the classroom, frequently beyond the teacher's reach. This could be interpreted as a danger, thus the task is to create designs that indicate what should be learned in the classroom, what should be learned outside, and how these settings will be connected.

REFERENCES:

[1].   HISTORY OF E-LEARNING, [online] 1998, Available at: http://www.leerbeleving.nl/wbts/1/history_of_elearning.html
[2].   O'Malley, C.; Vavoula, G.; Vavoula, G.; Glew, J.; Glew, J.P.; Taylor, J.; Taylor, J.; Sharples, M.; Sharples, M.; Lefrere, P. MOBIlearn WP 4—Guidelines For Learning/Teaching/Tutoring in A Mobile Environment. Environment 2003, 14, 2007.

[3]. Georgiev, T.; Georgieva, E.; Smrikarov, A. M-Learning—A New Stage of E -Learning. In Proceedings of the International Conference on Computer Systems and Technologies, Chennai, India, 16–18 December 2004.

[4]. Rao Mallikharjuna, N.; Sasidhar, C.; Kumar Satyendra, V. Cloud Computing Through Mobile-Learning. Int. J. Adv. Comput. Sci. Appl. 2010, 1, 42–47.

[5]. Kukulska-Hulme, A.; Shield, L. An overview of Mobile Assisted Language Learning: Can mobile devices support collaborative practice in speaking and listening. In Proceedings of the EUROCALL 2007, Granada, Spain, 23 October 2007.

[6]. Sharples, M.; Arnedillo-Sánchez, I.; Milrad, M.; Vavoula, G. Mobile Learning. In Technology-Enhanced Learning: Principles and Products; Balacheff, N., Ludvigsen, S., de Jong, T., Lazonder, A., Barnes, S., Eds.; Springer: Dordrecht, The Netherlands, 2009; pp. 233–249. ISBN 978-1-4020-9827-7.

[7]. Introduction to E-Learning,[online] 2004, Available at: http://www.chengzhi.net/english/ index.htm

[8]. Developing Library and Information Services for E-Learning Environment by R M Vatnal, G C Mathapati,K Prakash

[9]. Luís F G l Pedro*, Cláudia Marina Mónica de Oliveira Barbosa and Carlos Manuel das Neves Santo: A critical review of mobile learning integration in formal educational contexts. International Journal of Educational Technology in Higher Education (2018) 15:10.