

## Mobile and Ubiquitous learning- applications, benefits in education with its challenges posed to education.

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**Abstract:** *In mobile learning, learners attain knowledge, information at his/her ease of time, place and situation without disturbing his/her other routine/job works. Moreover having knowledge, information, skills as given above simultaneously by many learner, students or people by modern means like cellular phone, internet, laptop, desktop, social media like hike, email, facebook etc is ubiquitous learning. Mobile and ubiquitous leaning has broken water tight compartment separation of formal, informal, and non formal learning. Though it has brought all on common place. Formal and non formal classes can be accessed by mobile and ubiquitous learning. Govt. Education departments are also following modern educational techniques like internet, broadband, Radio, TV, Wi-Fi etc. in campus of universities, colleges and schools to support mobile and ubiquitous learning to maximize the reach of education, information and knowledge to the beneficiaries. Main components of mobile and ubiquitous learning are devices like cell phone, laptop etc by which knowledge is accessed, Content matter means knowledge/information, skill which is to be accessed must be up to mark and authentic, Learner who is to have knowledge like student, general public, teachers and educators etc. Mobile and ubiquitous learning has tremendous application in education. Lesson can be accessed like video and audio lessons on demand, video conferencing with many experts at a place. Knowledge can be shared by a lecture to many ones within no time. It has direct beneficial impact on education as it is paperless, 24/7 available, large assignments can be shared easily, flexible, cost effective as internet and electronic devices are getting low cost day by day definitely it would enthused the learning and education. But challenges to education in mobile and ubiquities learning cannot be ruled out. So mechanism to control it must be put in place and strengthened. Cyber crimes, problem of copyright of authentic knowledge as well as piracy to original information posing serious threats to education. Economic as well acknowledge losses are there due to it too. Unauthentic knowledge must be examined debugged at once and regular scrutiny be done. Sometimes Devices are not easily compatible data transfer gets interrupted. Regular updating of software, systems must be carried out. On the whole it is proving to be boon to education.*

**Key words:** *mobile learning; ubiquitous learning; cyber crimes; debugged; content matter.*

## INTRODUCTION



Mobile learning should be restricted to learning on devices which a lady can carry in her handbag or a gentleman can carry in his pocket.

Mobile learning which is known as M learning is a type of educational system. With the help of mobile device we can continuously access to the learning process. Mobile and ubiquitous learning is a flexible technique which allows students to access the education at any place and at any time. Students use mobile apps and tools to complete and upload their assignment task to teachers, they can download course instructions and also work in online social groups to complete their task. Mobile learning is fastly extending field of education research across schools, colleges and universities as well as in the place where we work. It is also getting an importance as informal learning.

In mobile learning, learners attain knowledge, information at his/her ease of time, place and situation without disturbing his/her other routine/job works. Moreover having knowledge, information, skills as given above simultaneously by many learner, students or people by modern means like cellular phone, internet, laptop, desktop, social media like hike, email, facebook etc is ubiquitous learning. Mobile and ubiquitous learning has broken water tight compartment separation of different type of learning like formal learning, informal learning, and non formal learning.

### **M LEARNING**

In wider context, learn with the help of mobile, not sitting at a particular place, moving at any place, at any time suitable to the learner. Keeping books with someone for learning every time/everyplace facilitates learning at ease but keeping book always is quite cumbersome.

In narrow content or specific way “In M learning the learner pursue study at their own pace and place (campus/home/workplace) they do not have to withdraw themselves from their work/job and they can compute their course of study from different institutions and university, learner can even study from different countries simultaneously. One learner can take guidance from more than one teacher at a time, learner can share information with teacher and other friends through this mobile learning. This can enable the learner to gain control of the learning process and achieve mastery in subject” Among the various mode of education, mobile learning in India is becoming a need of the hour. The rapid growth of technology makes M learning possible in India.

### **Jammu and Kashmir initiatives**

The state Jammu and Kashmir govt. Education department introduced a learning software Edu comp wherein introductory training of using modern means of imparting knowledge to all the state Govt. teachers is given. This is also to recognize the need of hour. Moreover computers, internet according to strength of students, are being allotted to school to promote e learning (contribute to mobile learning). Wi-Fi connections and computer laboratories are

also in pipeline to be provided to schools this will also promote mobile learning in teachers and students.

According to Norbert Pachta, Ben Bachmrin and John Cook 2010 mobile learning should be restricted to learning on device which lady or a gentleman can carry in his pocket.

According to Keegan, [2005] today more than 6 billion people have access to mobile device. It has reduced the dropout's rate by 22% in worldwide.

Mobile learning is a flexible technique which allows students to access the education at any place and at any time. Students use the mobile app and tools to complete and upload their assignment task to teachers. They can download course of institutions and can also work online social group to complete their tasks.

Mobile learning provides an opportunity to access educational environment and resources and with other peoples, learners without being limited by time and place. According to Boyinbode and Akinyede 2008 "Mobile learning is a combination of mobile technologies and appropriate pedagogy to allow learners to interact with learning environment, and other learners at any time from any location. Mobile learning is a sub category of the larger concept of e-learning." Mobile learning as the interaction of learner with mobile.

### **UBIQUITIOUS LEARNING**

Getting knowledge/information/education at any place, any time by many people .Definitely indispensable things related to mobile learning techniques are computer, cellular phone, tablets, e mails, and facebook, twitter, whatsapp, and hike etc social media too.

Ubiquitous learning institution: It is situated and immersive and this could take place from traditional classroom in a virtual environment.

Mobile learning is based on belief that people learn differently as a result of using mobile in different ways. The benefits of the mobile learning devices are easily transferable; connectivity and as per situation, when it is combined with practical and theoretical situations then ideas can be transfer learning from knowledge acquisition process to an active social interaction. Ubiquitous learner is more than just the latest educational idea or method. Learning occurs not in classroom but in playgroups, workplace, home, library, museum, and in our daily interaction with others. Ubiquitous learning is often defined as learning anywhere, anytime and is associated with mobile and technologies.

Nicholas c. Burbules (2009) director of ubiquitous learning institute at the University of Illinois gave six aspect of it.

- 1) Spatial ubiquity: we have constant access to internet or other has constant access to you. The distinction of formal v/s informal learning blurred as people can access the



internet in class or outside, both mode of learning can be pursued by ubiquitous learning.

- 2) Mobile device: like laptop, phone, computers are used in achieving learning.
- 3) Interconnectedness: With web: 2.0 technologies we are connected to constantly not only to information but to people expertise. It is correlated to (Siemens 2005 theory of connectivism) knowledge is more important than its source.
- 4) Practical ubiquity: traditions lines are blurred, Burbules [2009]: work/ play learning/entertainment accessing / getting info public/private are distinction that conceptually might now have been act as our usage suggested to them to be like project based learning which may or may not have technology components.
- 5) Temporal ubiquity learning can be scheduled to habits and preferences. This also denotes a shift in perception of and interaction with time.
- 6) Globalized transitional network: in world continual flows of ideas, information and people across tradition physical and cultural barriers. We are in age of fundamental interconnectedness.

### **Challenges to mobile and ubiquitous leaning**

**1 Designing learning materials for mobile devices:** Designing of learning material for mobile learning is a difficult task. Learning material must be unbiased and free from all prejudices and can be caught easily. Everything should be understandable. And for doing all this need of expert is must.

**2 Dealing with connectivity and battery life:** Connection problem can be arise at any time. Wholly solely dependence on electronic devices requires good quality battery as well as good connectivity.

**3 Avoiding the risk of distraction:** To avoid the risk of distraction is a little difficult. Availability of learning material should be free from all distraction with great speed and free from errors.

**4 Money factor:** In past mobile phones were very costly, but with the help of modern technology, now a day's mobile phones are very cheap and accessible to all. So to avoid money factor problem technology and internet must be cheaper.

**5 Application limitations:** Some applications of computer are not compatible and not synchronize data; these kinds of issues must be taken care of seriously

**6 Generational appeals:** Now a day's generation appeals that our learning sources are must be in compatible and portable shape. Software must be user friendly and old age disable people must be able to operate easily and can do away with technology easily.

**7 Connectivity could be missing:** Connectivity of devices must be solid and consolidated. So that Maximum information can be transposed.

**8 Limited information, a limitation:** Limited information is a serious issue for enhancing the mobile learning education. So we have to make a plan for getting required information and also organize various seminars for giving the knowledge regarding the awareness of mobile learning. Maximum information should be uploaded and expertise of which is still at dearth.

**9 Devices compatibility:** Devices must be compatible to maximum extent so that knowledge can be transferred.

**10 Authenticity of content:** Authenticity of content is another issue for enhancing the mobile learning. To get rid of this issue we have to check the data or content before uploading in the system. Content must be authentic as some hackers can upload miss information.

**11 Problem of copyright/privacy:** Some important material which is having copyright must not be reproduced without the due permission of the owner of the material and moreover piracy in cyber space must be eliminated.

**12 Cyber crimes:** Cyber law must be made and enforced and its mechanism too must be improved

### **Applications of mobile and ubiquitous learning**

**1 Video on demand:** As all we knows we learn better by pictorial views other than books. So there is a need that every lesson of all class and topic is available at YouTube, educational sites, NIOS site etc.

**2 Video conferencing:** Video conferencing is a way to talk face to face by more than two peoples. Any topic can be elaborated by it by many experts at a time. By this application all information can be accessible to all.

**3 Camera and video in mobile phones:** Any good material can be in caught in camera of mobile and video of lesson can be stored in it too. And we can also share the materials with many peoples in a very short time example social media.

**4 Location based services:** Some universities provide good payable site, payable download material.

**5 Send/receive large e-mail messages:** With the advancement of technology it is helpful to send and receive large e mail messages by this application sharing of information is easy and accessible.



**6 Mobile TV:** Vyas channel, Gyan Darshan, Gyan vani can be accessed by mobile app. By this we can view various educational channels at any place.

**7 Mobile broad band:** It provides good speed of data and uninterrupted too. It enthused the learning.

**8 Getting information:** Getting every type of information at a time by many ones. We can get every type of knowledge. We can also get information regarding various courses, admission, advertisements etc.

**9 Scientific applications:** Certain specific theories, formulas are easily accessed and used positively. We can also learn from various scientific applications. We can use it in our education system.

**10 SMS/MMS, text and picture messages:** Students can make mms lessons of a class and can learn at their ease .SMS can be used to short information of reference of sites, places etc. We can share knowledge with the help of sms/mms, text and picture messages.

**11 EMMRC lesson from New Delhi:** Lesson on all topic all class can be accessed.

### **Benefits of mobile and ubiquitous learning in education**

**1 Easyness to access material:** We can easily access material from various sites and we can also access material by video on demand, sms, emails etc.

**2 In every short time:** In every short period of time we can access various materials. There is no delay as to access websites, whatsapp, Skype, hike etc

**3 No manual labour:** There is also need of manual labour no need to go anywhere as everyone can access it a place like mobile, internet, email etc.

**4 Portability:** carrying book, seeking journals paper is cumbersome where as reading in mobile, online, laptop is easy.

**5 Cost effective:** Purchasing books is costly where purchasing internet is costless. We can access the material in a very cheap way.

**Conclusion:** Mobile and ubiquitous learning is getting importance day by day. It has a lot of benefits in our education system. We can access the material at very short time from various websites. It is also very cost effective now days. And also we can carry it with us in anytime and in anyplace. We can say that it is more than the latest educational idea. Learning occurs not only in classroom but everywhere in playground, workplace, home, library, and museum and in our daily interaction with others.

**References:**

- 1) N. Pachler, B. Bachman, and J. Cook, "Mobile learning.",2010.
- 2) C. Simmons and C. Hawkins "Teaching ICT", New Delhi: sage publication,2009.
- 3) Sareen, "Information and communication technology," New Delhi: J.L. Kumar for Anmol publication pvt. Ltd,2005.
- 4) Khedkar P.D, Subramanian M. and Pathak M. Bebe analysis of researches on moocs in India: status and challenges. *University news*, 55(27), July 03-09, p.14,2017.
- 5) V. Jaiswal and P. Gupta, E-Learning in higher education: Indian perspective. *University news*, 48(03), January 18-24, p.5,2010.
- 6) B.J. Patel 4G enable M-Learning for future generation. *University news*, 55(08), February 20-26, p.18,2017.
- 7) [www.tonybates.ca](http://www.tonybates.ca)
- 8) [www.ajocict.net](http://www.ajocict.net)
- 9) [www.mobilelearningedge.com](http://www.mobilelearningedge.com)

