

ACKNOWLEDGING FUTURISTIC METHODS OF THE LEARNING SCENARIO TO BE ADOPTED

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ABSTRACT

Today's students have grown up with enormous access to digital technology in the last decades of the 20th century. Educators are trying their best to provide every possible key to learn better. The key to success is the ability of educators to design and develop pedagogically sound opportunities and environments that enhances learning. As Mark Prensky (2001) has suggested, today's students are no longer the people the current educational systems have been designed to teach. Today's students have enormous access to digital technology and display characteristics such as digital fluency and familiarity with new technologies never before imagined, they are digital natives. They are the speakers of the digital language of computers, mobile telephones, the Internet and other associated technologies, they are Generation C. Generation C typically produce and share digital content, such as blogs, digital images, digital audio or video files and SMS messages. It enhances in mobility of the learner, interacting with portable technology, learning in a mobile society, improves access to information so that people can update their knowledge continuously to satisfy the demands, to improve cultural experiences of life. Over the past ten years mobile learning has grown from a minor research interest to a set of significant projects in schools, higher education, workplaces etc. around the world.

Keywords: Mobile technology, Learning Process, Internet, Learning modules, Ubiquitous learning

INTRODUCTION:

In this modern 21st country M-Learning is one of the important aspect of learning process and which has enormous implications in the present education system. But in a country like India, which is not free from technical as well as social and educational challenges. M-Learning is one of the important and new methodologies adopted by the educators as an effective aspect of providing learning. M-learning aims at making the learning process more flexible, accessible and personalized. M-learning is the acquisition of any knowledge and skills using mobile technology.

It is defined as the ability to complete access and manipulate data and communicate by using a mobile. It is also referred to as wireless learning.

Today's students are digitally fluent and interact with Internet-based technologies in a variety of ways. As reported by a survey conducted in America on 625 youths aged between 10 to 17 years;

- 71% used the Internet to get news or information
- 68% used their computers to send and receive emails
- 56% to get information about sports, entertainment and hobbies
- 54% to talk in chat rooms
- 17% to get health or medical information
- 17% to shop

These findings are indicative of worldwide trends, as 79% of youths reported having access to a home computer, 48% reported frequently using it for word processing and 55% reported using the Internet for information (OECD, 2005). Thus we can see by this brief examination of the characteristics of digital technologies in today's society that Generation C are well described as digital natives (Prensky, 2001). Our current education systems have been designed with a different student in mind.

M-LEARNING:

It is clear that M-Learning presents a number of advantages for teaching and learning. However, formal education policy has been slow to respond to this new technology and it is currently the initiative of individual institutions to translate these WMDs into learning technologies that will be adopted by educational settings. A brief overview of key policy documents from the OECD, the United Kingdom, Australia and New Zealand has been presented graphically as indicators of the current position regarding this technology. Mobile learning is actually 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. In other words mobile learning decreases limitation of learning location with the mobility of general portable devices. The term covers: learning with portable

technologies including but not limited to handheld computers, MP3 players, notebooks and mobile phones. M-learning focuses on the mobility of the learner, interacting with portable technologies, and learning that reflects a focus on how society and its institutions can accommodate and support an increasingly mobile population.

Arguably the first instance of mobile learning goes back as far as 1901 when Linguaphone released a series of language lessons on wax cylinders. This was followed up in later years as technology improved, to cover compact cassette tapes, 8 track tape, and CDs. Universities in Europe and Asia develop and evaluate mobile learning for students. Palm corporation offers grants to universities and companies who create and test the use of Mobile Learning on the PalmOS platform. Knowledgeability creates the first mobile learning modules for CCNA, A+ and MCSE certification using the core tools that later became LMA. The European Commission funds the major multi-national MOBIlearn and M-Learning projects.

Companies were formed that specialize in three core areas of mobile learning.

1. Authoring and publishing
2. Delivery and Tracking
3. Content Development

Conferences and trade shows were created to specifically deal with mobile learning and handheld education, including: mLearn, WMUTE, and IADIS Mobile Learning international conference series, ICML in Jordan, Mobile Learning in Malaysia, Handheld Learning in London, SALT Mobile in USA.

Over the past ten years mobile learning has grown from a minor research interest to a set of significant projects in schools, workplaces, museums, cities and rural areas around the world. The M Learning community is still fragmented, with different national perspectives, differences between academia and industry, and between the school, higher education and lifelong learning sectors.

Current areas of growth include:

- Testing, surveys, job aids and just-in-time (J.I.T.) learning
- Location-based and contextual learning
- Social-networked mobile learning

- Mobile educational gaming
- Deliver M-Learning to cellular phones using two way SMS messaging and voice-based CellCasting (podcasting to phones with interactive assessments)

According to a report by Ambient Insight in 2008, "the US market for Mobile Learning products and services is growing at a five-year compound annual growth rate (CAGR) of 21.7% and revenues reached \$538 million in 2007. The data indicate that the demand is relatively immune from the recession. The findings of the report indicate that the largest demand throughout the forecast period is for custom development services, content conversion, and media services and that the healthcare sector accounts for 20% of the total US market for mobile learning.

Advantages of M-Learning

- Mobility, i.e. it enhances the mobility of the learner.
- Operation, i.e. it is easy in operation.
- Accessibility, M-Learning is convenient in the sense that it is accessible from anywhere, which provides access to all the different learning materials available.
- Information, it provides and improves information of the learner.
- Knowledge, i.e. M-Learning updates ones knowledge continuously.
- Collaboration, it is also collaborative, sharing is almost instantaneous among everyone using the same context, which leads to the reception of instant feedback and tips.
- Portability, M-Learning also brings strong portability by replacing books and notes with small RAMs, filled with tailored learning contexts.
- M-Learning also helps in providing an opportunity to get in touch with the group of hard to reach learners.
- Providing equal opportunities to all learners to make quality presentation.
- Communication with faculty and access course materials without waiting, as such M-Learning saves time too.
- This kind of learning helps in engaging and gives fun. Therefore, it is easy to utilize it for a more effective and entertaining experience.
- It helps in assignments, tests and results.

- It also helps in interacting with friends, teachers and experts which helps in clearing doubts.
- M-Learning helps in accessing to a variety of learning resources and enhancing self-directed learning.
- New media of Distance Education, which makes distance education easy, flexible and meaningful.
- It helps in Paint and Shoot learning with camera phones.
- It also helps in providing behavioural based learning with camera phones.
- Helps in environmental education inside the four walls with camera phones.
- Helps in providing job support to the masses.
- M-Learning delivers podcasts, updates, references, alerts, forms and checklists.
- Students can use mobile phones in voting system in a classroom or teacher room.
- Mobile phones can be used especially for distance education or students whose course requires them to be highly mobile and in particular to communicate information regarding availability assignment results, venue changes and cancellation etc.
- Podcasting consisting listening to audio recordings of teachers and can be used for instance of reinforce lecture and in particular to give the possibility for the students to practice. It may be considered to have some influence on the traditional lectures.
- It helps in outdoor learning for eg. On field trips.
- It also helps in lifelong and self-learning, for eg. Hand held dictionaries and other devices for language and other learning's.
- M-Learning helps in improving levels of literacy, numeracy and participation in education among youths and adults.
- Above all mobile phone use saves paper which will be helpful for saving trees and will be able to save our planet.

The technical challenges of M-Learning are- connectivity, battery life, screen size, key size, global IT support, continuing expansion of broad band wireless networks, low resolution of displays, diversity of operating system etc. The social and educational challenges are- accessibility and cost barriers, to develop an appropriate theory of learning for the mobile age,

design of technology to support life time learning, tracking of results and proper use of this information, how to access learning outside the classroom, how to support learning across many countries, content security or pirating issues, frequent changes in devices models/technologies/functionality etc. Apart from above mentioned challenges, there are other challenges like- conceptual differences regarding M Learning, no relation on learning time table, personal and private information and content, no demographic learning, access to and use of the technology in developing countries, and also wireless access in the classroom will encourage or enable cheating is another being challenge.

IN SHEETS ABOUT M-LEARNING:

Six in ten people (more than 4 billion individuals) around the world are carrying a powerful computing device in their pockets and purses. They don't realize it, but today's mobile phones have the computing power of a personal computer from the mid-nineties, while consuming a fraction of the energy and are made at significantly lower cost. In India, the mobile phone has revolutionized communication and India is now one of the fastest growing markets for mobile phone services, with growing usage and increasing penetration. According to TRAI, there are 286 million wireless subscribers in India, June 2008, of which 76 million were capable of accessing data services. The increasing ubiquity of the mobile phone begs for it to be used as a learning tool. It would be a shame if we were unable to leverage it to improve socio-economic conditions in our vast population. Mobile phones are not just communications devices sparking new modalities of interaction between people; they are also particularly useful computers that fit in your pocket, are always with you, and are nearly always on. Like all communication and computing devices, mobile phones can be used to learn. The content delivered would depend on the capabilities (features) of the device accessing it. There are many kinds of learning and many processes that people use to learn, but among the most frequent, time-tested, and effective of these are listening, observing, imitating, questioning, reflecting, trying, estimating, predicting, speculating, and practicing. All of these learning processes can be supported through mobile phones. In addition, cell phones complement the short-attention, casual, multitasking style of today's young learners.

Viewed simply; phones are capable of:

1. Voice — These are the most basic phones, are still prevalent though being rapidly replaced. Such phones with voice only technology can be used to learn languages, literature, public speaking, writing, storytelling, and history amongst a whole range of topics. We've known that voice based learning works for millennia now.
2. SMS — Widely used in India, literally billions of short text messages are sent over the phone networks. These messages can be written quickly and offer enormous learning opportunities. SMS can be used to provide just in time information of almost any type, like reminders. (e.g., someone undergoing a formal mentoring process) SMS can be used for informational quizzes. There are also innovative games based around SMS that have strong learning potential.
3. Graphic Displays — Almost every mobile phone has a graphic display, even if it just shows signal and battery strength. Most phones today have far more graphic power and are able to display words, pictures and animation. Such screens also allow for meaningful amounts of text to be displayed, supporting rapid serial presentation of context-appropriate information. You can use this type of displays for almost any sort of learning. Eventually these displays will render content that is today rendered on personal computers.
4. Downloadable programs — With mobile phones that have memories, and can accept and install downloaded programs an entire new learning space is opened up on the phone. Almost any sort of learning content and interaction technology can be delivered to the phone using this method.
5. Mobile Internet Browsers — Internet browsers are now built into an increasing number of phones, especially those that take advantage of 3G or enhanced data networks such as GPRS. Having a browser on the phone opens up all the learning resources available on the web, including Google, LMS applications, typical eLearning courseware and other tools/applications.

Without proper research its hard to arrive at the worth of the m-learning market in India, any projection is unfounded; and is also due to the improbability of being able to predict the rate of technological (read network) adoption and penetration. However, empirically, we are seeing an increasing interest in M Learning. This example of mobile learning shows an application designed for women in villages without access to proper prenatal care.

Similar to India, it's hard to quantify adoption in more developed markets. It's well known that Asia and Europe are far ahead in terms of M Learning adoption compared to the North American market. The US market for Mobile Learning products and services is growing at a five-year compound annual growth rate (CAGR) of 21.7% and revenues reached \$538 million in 2007. It would be fair to say that revenues in Europe and Asia will be equal to if not greater than the North American market. Almost every sector will benefit from the use of m-learning, however we feel three primary areas that will feel the biggest impact: Education , Agriculture and Healthcare Additionally, rural communities will benefit tremendously not just from mLearning, but the mobile technology as a whole. Mobile devices are far cheaper than personal computers and do not depend on a continuous power supply to function. There is a definite appeal in gaming for learning using mobile phones. Currently, several companies are experimenting with game-based learning technology for mobiles. However, the feasibility of such an approach depends on the cost of development and deployment of such applications, which are quite high at this time. With increasingly capable hardware and connectivity available and dropping costs, it's only a matter of time before learning games on mobile become commonplace. In the future, we will see mobile phones, computers and various other computing/media devices (iPods, Digital Cameras, PDAs, etc.) we use converge into a single personal mobile computing device. At such a time, the differentiation between eLearning and mLearning will cease to exist; all learning will be electronic and mobile.

Available Mobile learning courses:

The range of mobile learning courseware available as models for new users is getting extensive and includes following themes:

1. Using PDAs in clinical assessment sessions of medical students (limited use of course content + assessment activities)

2. Using PDAs in postgraduate engineering courses (limited use of course content + communication)
3. Using Bulk SMS for general library support (administrative)
4. Developing an "SMS Gateway" as part of an LMS and student online services (administrative and communication)
5. Using Bulk SMS for student support in three paper-based distance learning programmes
6. Statistics M-learning course from the German FernUniversität
7. Courses in literacy and numeracy for undereducated in South African Universities.
8. Courses in art appreciation from the Budapest University in Hungary
9. Students on MBA courses who require summaries, examination preparations, additional information and focused studies
10. Students in the health care professions who require updates and specialized information
11. Visitors to museums and art galleries who will receive detailed information on exhibits on their mobile phones.
12. Courses in telecommunications from Ericsson in Dublin
13. Courses in business and marketing through M-projects from a number of US corporations.

CONCLUSION:

Mobile technologies have provided unique opportunities for educators to deliver educational materials efficiently, and to support the cognitive and social process of student learning. Educational materials can be delivered to students through mobile devices. Students can communicate and interact with peer students and educators in real-time using mobile technology. Mobile technology can also be integrated into curriculum design to improve interactivity in the classroom. Applications of mobile technology in education can provide benefits to both students and educators. Mobile technology provides greater flexibility in student learning. Students can have access to educational materials through their mobile devices, which enable them to learn as and when the need arises and when the time is right for them, no matter where they are -- even when they are on the move. The M-Learning community is still fragmented with different national perspectives, differences between academic and industry and between the school, higher

education and lifelong learning. As such M-Learning concept should be popularized in every part of the world so that learning process can be made easy, enjoyable, time saving, portable and accessible. The characteristics of mobile devices like ubiquity, access, richness, efficiency, flexibility, sincerity, reliability, interactivity have to be improved to reach the high efficiency of mobile learning for the future generalization as well as for the hard to reach learners. MLearning facilities become an unavoidable source into the process of learning without which the future may not be possible.

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