

m-Learning

Introduction

Telephone has revolutionized communication

According to TRAI, >1192 million wireless subscribers (Jan 2019)

Increasing ubiquity of mobile phone leads to use it as learning tool

m-Learning is a type of personal learning that has infinite possibilities; it allows more and more people to gather knowledge and to realize their dreams of a better future

Definition

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.

Ways of content delivery

❖ **SMS**

❖ **MMS**

❖ **Voice call**

❖ **Pod casting**

❖ **Online chatting**

❖ **Video conferencing**

SMS (Text Messaging-1984)

Is the simplest technology, interactive learning activities can be devised with very basic equipment

All mobile phones, including the cheapest, most basic models, can send and receive text messages, so this is the most widespread of the technologies

Multi Media Messaging Service (MMS - 1984) is 'picture messaging', the system by which camera phones and PDAs can send images, audio clips and even video clips as well as text to other phones and to e-mail addresses

Voice call

Allows the learners to clarify their doubts on an online learning mechanism using Interactive Voice Response (IVR) and voice data services

It enables the user to have immediate feedback on any critical issue where they may face a problem

Many times such services are offered on a toll free basis

Podcasting

Listening to audio recordings of lectures, and can be used to review live lectures (Clark Westcott 2007) and to provide opportunities for students to rehearse oral presentations

Areas of application

Almost every sector will benefit from the use of m-Learning, Primary areas of application: Education, Agriculture and Healthcare

Agriculture

Many management decisions in modern farming require up-to date and local information, for example, regarding weather forecasts and regional recordings of crop diseases and pests.

Need of m-learning in agriculture

Agriculture extension is an extensive and continuous activity

Timely, precise and location specific advisory to the farmers on crop management, crop health etc. is the key for effective extension

Field extension functionaries have the limitation of time and resources to reach the ultimate client

Can cater to the timely and location specific advisory to the ultimate client on agricultural practices

Examples of m-Learning

- **Bharti Airtel and IFFCO Farmer Co-operative: IKSL Agri Helpline – India**

Farmers who purchase a Bharti Airtel “Green SIM” have access to value added services which include daily agri voice messages and an agri helpline

m-Kisan

Since 2013

No of SMS Sent: more than 239 crore

Nr. of Farmers registered: 5,14,40, 516

RML agritech Pvt. Ltd. Formerly Reuters Market Light (RML) (01-10-2007)

- Provides customized, localized and personalized weather forecasts, local crop prices, agricultural news and crop advisory – in the form of SMS sent to mobile phones in local language
- Helps farmers to plan irrigation, application of fertilizers and harvest – managing some of their risks and to sell produce to maximize profit
- Currently, 3.4 million Indian farmers from over 60,000+ villages have subscribed to RML. Covers 450 crops and varieties and 1300 markets
- Through sharing, estimated use by millions of farmers
- The service is available in 18 states in India

Push SMS

Farmers can register themselves for receiving these messages on their mobiles as per their needs

They can register themselves through any of these channels

- **Web Registration** at <http://farmer.gov.in/Advs/WebRegistration/WebReg.aspx>
- **KCC** – by calling on Toll free number – 1800-180-1551
- **Sending SMS** at 51969 or 9212357123
- **Common Service Centers (CSCs)**
- **State/District or block agriculture offices**

Pull SMS is used by farmers and various stakeholders to extract information from databases by sending SMS in a particular format to any of the following two numbers

51969 or 7738299899

Currently made available in English script only

Response will nevertheless be in the language of the State

Charged as per the rental or special-pack plan of the subscriber

Users will be charged as per the rates applicable as on date for the messages sent to 51969

Advantages of m-Learning

- Enables information when it is needed
- Allows use of rich media when appropriate
- Provides access to experts
- Provide location specific information
- Any time any where – when required

Challenges

Technical challenges include

- Connectivity and battery life
- Screen size and key size
- Number of file/assets formats supported by a specific device
- Content security or copyright issue from authoring group
- Reworking existing e-Learning materials for mobile platforms

Social and educational challenges include

- Accessibility and cost barriers for end users
- Digital divide
- How to support learning across many contexts?
- Content's security (or) pirating issues
- Developing an appropriate theory of learning for the mobile
- No restriction on learning timetable
- No demographic boundary
- Disruption of students' personal and academic lives

Conclusion

- If learners wishes to learn, there exists many options
- An option provides opportunity any time any where learning
- Development of content suitable for learners is a challenge for professionals