

A Study on Mobile-Learning an Innovative Approach for A Stress-Free Learning Environment in Engineering Colleges in Around Chennai

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Abstract: This paper is trying to explore the importance of mobile learning, it's needs, the scope and the edges in the education that too, particularly in the field of higher education especially for engineering students in India. Wherever the engineering students are possessing incompetency that results in stress, therefore it's necessary to grasp that there's an associate imperative want for innovation in teaching pedagogy for, instance, Mobile learning or M-LEARNING as a strategic approach to induce competency and to scale back stress among students. To support this cause today's technological environment too, is appurtenant to gain momentum for the above-mentioned cause. If we see after JIO penetration into Indian Telecom sector the accessibility of the internet has been increased many folds, but unfortunately the actual benefits of such data penetrated it not being properly leveraged for the welfare or the development of the society, therefore it becomes necessary to understand how can we use M-learning in engineering education, which will not only induce competency but even reduce stress among engineering students this paper elaborates on that

Keywords: M-Learning, Engineering students stress, students stress

I. INTRODUCTION

As India became one among the countries victimization giant volumes of the mobile data that too, after Jio into the entry into the market, which had penetrated the market with value for money offers, eventually it had become one of the largest subscribers by taking out others market share from the present market players, that even forced others to follow their footprints so as to avoid loosing their client base. However, if we tend to see the kind mobile usage in India individuals usually use it for social media such as WhatsApp, Hike, We Chat, Facebook, and LinkedIn

Nowadays these kinds of social media apps are no longer exclusively used for sending text messages, chatting and selfish uploads. Rather, individuals are using social media based on their personal requirements, for example, Facebook can be used for any purpose not only for connecting with individuals even you can start a group where you can share and gain knowledge at large. Just think of a world where there will not be any barrier between formal and informal ways of learning. Learning will be glare, learning and education becomes sane and pervasive, not any time specific, available anywhere, with good resources, without the need of any basic previous qualification,

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pace and style of learning. Information technology, especially Mobile as a tool of learning has the potential to achieve such a transformation.

WHAT IS MOBILE LEARNING

Mobile learning (M-learning) is a broolly term usually used to describe learning that happens through the interaction with the content in devices like mobile phones, tablets, palmtops, Personal digital etc. Never less to say, mobile learning has paved the way for many new innovative ideas that can effectively be used for personalization, collaboration, the synchronicity of interactive, peer-learning mobility & accessibility, etc. were a dream earlier. McQuiggan et al. (2015) concluded that mobile learning added a new level of engagement to any kind of learning in the classroom, students are enjoying and they were interactive while mobile learning is being practised.

II. ADVANTAGES OF MOBILE-LEARNING OVER OTHER FORMS OF LEARNING

1) CONNECTIVITY

It can be instantly and ubiquitously connected to Wi-Fi, Bluetooth and it gives access to the world of internet at fingertips, which enables a student to learn anytime, anywhere that can be inside or outside the classroom. In a study with undergraduate students, Dahlstrom et al. (2011) found out that 78% of students were considering Wi-Fi to be extremely valuable to their academic success.

2) MULTIPLE APPLICATIONS

Nowadays, modern mobile phones are having advanced features like touch screen, Geolocation, AR, Audio, Video and access to Microsoft-office, which are now coming in handy and has a potential which can completely meet different sort of learning demands of the students.

3) FAMILIARITY

A 2013 Pew survey (Madden et al., 2013) demonstrated that 77% of families reported having at least one Smartphone in their household, and 46% of reported having at least a tablet. 43% of children used a mobile device. By this, we can say that mobile phones can be used as an effective tool in learning and development.

4) CONVENIENCE

As the mobile phone has an edge over personal since it can be used anywhere and at any time, which further makes it an effective tool for learning and development among students.

DIFFERENT MODES BY WHICH MOBILE LEARNING CAN HELP THE STUDENTS



Contingent Learning:

Traxler (2010) and Bachmair and Pachler (2015) argue that compared to the desktop computer whose context was defined by the teaching context of the school, i.e. standardized, fixed, timetabled, productivity-oriented, mobile phones have the characteristics of contingency and provisionally. Learners can react and respond to their environment and changing experiences. For a field trip, learners may gather and process data in situ in real-time and instantly follow up with investigations, based on their findings and their curiosity.

Situated Learning

These forms of learning take place in surroundings that build learning substantive. The development of data in such cases takes place in things and activities in authentic contexts (Bachmair and Pachler, 2015). In such a case, a lesson on history will occur during a repository. Students with mobile phones and the net will seek a lot of data, use chat messengers to move and share data in real time, click and post photos and videos of the artefacts.

Authentic Learning

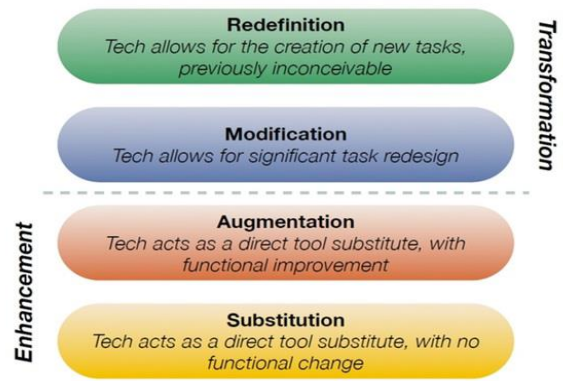
It means learning task area units are meaningfully associated with immediate learning goals such learning should go hand in hand. Students will find out the techniques for conniving age of associate in the nursing recent artefacts (carbon dating) by observance videos on mobile phones. This accounts for a lot of realistic and relevant learning expertise. Traxler (2011) suggested that it may be an area of any business or skilled course with a serious part of labour expertise like coaching to a nurse, teacher, doctor, mobile-learning plays a vital role.

D) Context-aware atmosphere

Learning is been enlightened by the history, surroundings and the atmosphere of the learner. Benamar et al. (2013) describe context-awareness because of the embedding of learning activities into existence that runs through mobile devices and services. This involves the style of pervasive learning systems wherever there's the timely provision of delivery of relevant material for a specific task in a specific time. One example of this is often augmented reality (AR), where the learners can use mobile phones on a sashay to collect information or data concern areas within the house by exploitation camera (geotagged locations) or GPS on their mobile phones.

E) Customized Learning

Learning will be tailor-made for the individual learners need by cater to the requirements, talents and interests. Dead (2008) noted that learning was a person's activity that was quite different in its manifestations from person to person. Mobile phones supply a platform to modify learning for based on each individual needs and, at the same time supply a good source of resources at the correct level of the individual requirements.



(Image

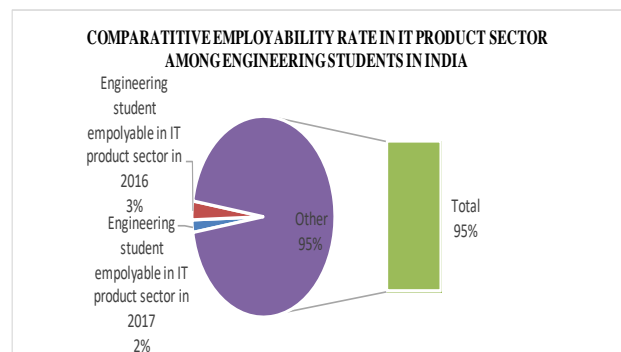
Source:

<http://www.schrockguide.net/samr.html>)

III. NEED FOR MOBILE LEARNING IN INDIAN SCENARIO ESPECIALLY IN ENGINEERING COLLEGES.

Mostly in Indian villages primary, secondary and higher secondary education is easily accessible for the common children since most of the village has schools nearby, but the problem starts when we talk about higher education in terms of Professional and Nonprofessional courses. Since nearest college for higher learning a degree college will be at a minimum distance of 25-30 Km, therefore, it becomes essential to go for a non-formal mode of education which will ensure quality and reach. To bridge this gap a concept called M-learning has the potential to solve this issue. Indian higher education sector is found in both formal and informal education system. However, if we see the engineering education in the Indian which currently facing a real challenge of not able to bridge the gap between academic outcomes and industrial expectation this can be ascertained by the fact that the students of engineering are lacking competency required for the job. As per the leading skills assessment agency in India.

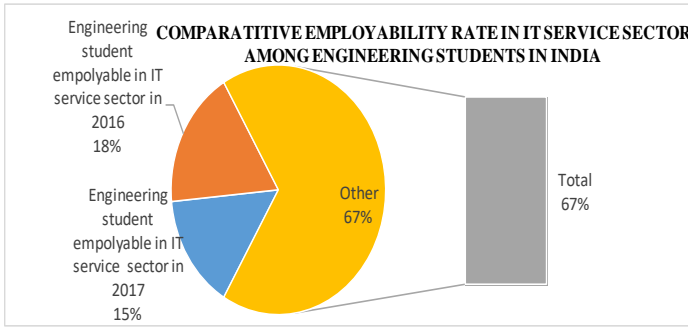
CHART-1



Source: Aspiring mind (2016 &2017)

FIGURE-1

CHART-2



Source: Aspiring mind (2016 &2017)

Inference:

From the above charts-1, we can say that there are only a few engineering students who can be employable in the IT product sector, which was 3% in 2016 and in 2017 it becomes 2% so there was a drop of 1% in the students possessing the skills required to be employed in that sector. Similarly, if we see the chart-2 there are only a few engineering students who can be employable in the IT service sector, which was 18% in 2016 and in 2017 it was 15%,so again there was a drop of 3% in the engineering students possessing skills required to be employed in that particular sector.

IV. NEED FOR MOBILE LEARNING IN AROUND CHENNAI FOR ENGINEERING STUDENTS

If we see in Chennai suicides among engineering students is on rising in past one year there are four cases of suicides among engineering college students in around Chennai the reason behind such adverse step was academic stress. Details are mentioned below

CASE-1

An engineering fourth-year student of a reputed university in Chennai comments suicide since he was having back locks in seven papers.

CASE-2

Frustrated over unable to secure a seat in training institute, 19-year-old engineering university student commits suicide in Chennai.

CASE-3

A 22-year-old student from reputed university commits suicide over caught cheating in the exam at Chennai

CASE-4

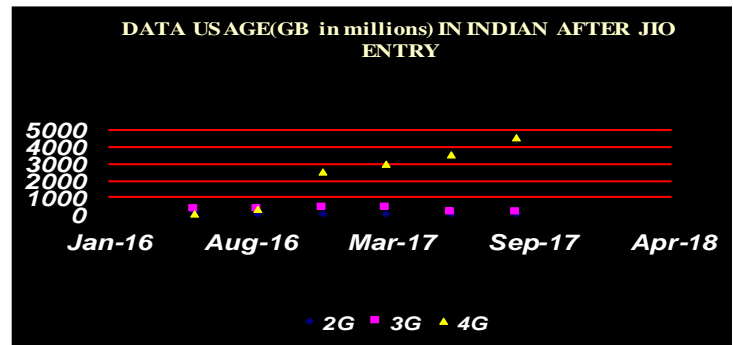
A final year engineering student has been harassment by his head of department (HoD) for the last six months and had blocked this hall ticket due to which he committed suicide in Chennai.

CASE-5

According to national crime records bureau Chennai top among metro city in India for suicides

INDIAN CURRENT TECHNOLOGICAL ENVIRONMENT FAVOURS MOBILE LEARNING IN ENGINEERING COLLEGE IN AROUND CHENNAI AFTER JIO ENTRY

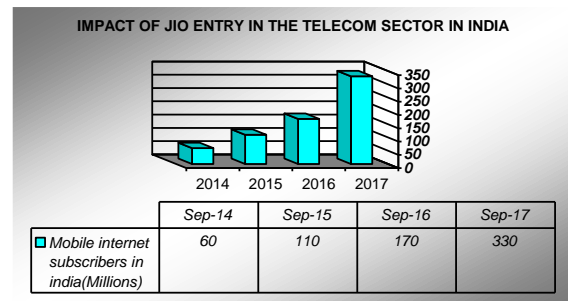
CHART-3



Source:TRAI and kotak

As we can see that after JIO entry into the market according to the Graph-1 4G Data usage had been sharply increased, which was previously dominated by 3G, 4G. It had crossed 4000 million GB usage in the last year itself. Initially, if we see before the entry of JIO 4G usage was nearly equal to 3G that was before Sep 2016 and then it had rapidly increased and crossed 4000 millions of data usage in GB.

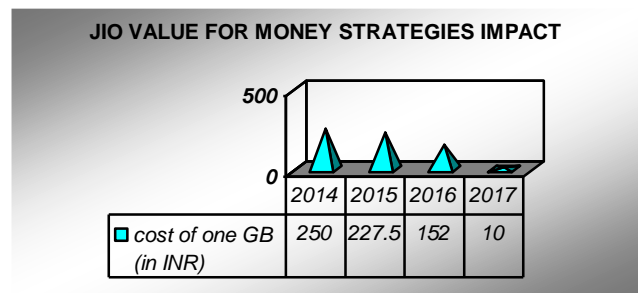
CHART-4



Source:TRAI/IPC

In the same manner, if see from the chart-4 in the past four years there is an increase in the people subscribing to mobile internet that too after JIO entry into the market, there was a double in the usage, which was not the case in the preceding year

CHART-5

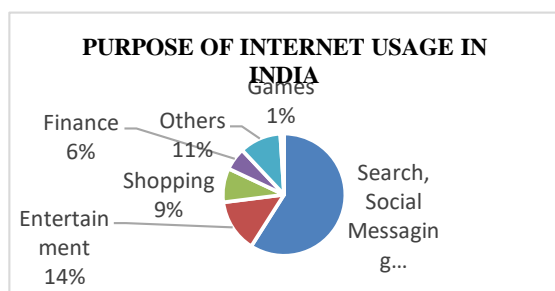


Source: TRAI/IPC

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Even if by seeing the chart-5 we can say that due to the effective value for money pricing strategy of JIO, which had led to an overall decrease in the price of data which further increased the penetration of internet usage among mobile users in India.

CHART-6



Source: Kantar IMRB & MMA

If we see from chart-6 mostly individuals are using the internet via smartphone mainly for the following purpose, search, social messaging with 59%, whereas, 14% were using it for entertainment, followed by 11% were using it for other purposes, 9% were using it for shopping, 6% use it for finance and 1% use it for games, therefore, there is a large scope that internet via smartphones can be used for educational purpose particularly in the field of engineering education.

V. CONCLUSION

By facts explored in this research, we can say that mobile learning can be an effective tool in learning at higher education that too, particularly to induce competency among engineering students were most of the students are subject to academic stress, which leads to adverse effects such as depression, anxiety and in the worst cases, it is leading to suicides, therefore, such innovation in pedagogy in engineering will not only boost the competency among students even it will lead to distress the stressful condition learning among engineering students.

To support this cause even technology environment has been conclusive in Indian context since after Jio entry into the market cost to avail the internet service via mobile phones has rapidly come down even data usage has been rapidly increasing. After JIO entry into the market the 4G Consumption has crossed around 400 million of GB usages, even mobile subscribers of the internet had increased to double within a few months of JIO entry, but unfortunately, the real benefit of such technology availability had not been properly encased for human development, which, is still far.

Since the majority of the users are only using it for general search, messaging, entertainment, shopping and other miscellaneous uses. But, unfortunately, it's not been properly utilized for the benefit of the students for example, educational purpose that too, particularly for engineering education where there is a lack of competency among students and stress is at its peak by introducing mobile learning in engineering education it will not only induce competency among student even promote stress-free learning environment, therefore, It is the primary responsibility of the policymakers to go for an innovative

design in teaching pedagogy in order to meet industrial expectation, which will in turn help in bridging the gap between academic and industry at large by inducing desire competency among engineering students and creating a stress-free learning environment.

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