

Mobile Learning Apps – The Next Level of Learning

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Abstract

The technological revolution that India witnessed in the 1990s had brought about transformation in all the sectors, including, education. The ease of connectivity and usage of Internet has broadened the horizons of students and teachers, both. Online education has taken the center stage now, more than ever.

This paper is focused on the rise of various online learning platforms that provide learning at the click of a mouse, specifically the mobile learning (M - learning) apps. The manner of dissemination of knowledge on online mediums has proved to be a worthy success. It has rightfully challenged the traditional medium of classroom learning.

The technological gadgets and easy availability of internet connection has granted us considerable freedom to push the boundaries of possibility. This shift has powered the growth story of M – learning apps in India. The question to ponder herein is whether these online platforms of education have a long – term impact and what will be the new role of an educator in these times. The various connected issues such as flexibility, convenience of students, multiple electronic devices, communication skills of educator, etc. also need to be analyzed in depth to understand the growth story of innovative technology in teaching.

Keywords: E – learning, m – learning, mobile apps

Introduction

The growth and proliferation of online education or learning via mobile applications has been powered by ease of internet connectivity and penetration of smartphones in almost every household in India. One only needs to search for an app one needs; there is one that caters each and every demand of the mobile phone user. Whether it is booking movie tickets, ordering food, clothes, repair services, or anything at all, there is an app existing for this and more. Such apps make our everyday lives much simpler. It is hard to imagine living without them, given our dependency!

Since most sectors make use of mobile applications to further their business, it is but natural that the field of education has also embraced the concept. The traditional methods of learning are challenged day-by-day and many of us have woken up to this particular development. 'Smart learning' through the use of numerous technological gadgets has been adopted by various schools, institutions of higher learning and even workplaces. Gradually, we are shifting from traditional ways of learning to E - learning.

The online education learning platforms available to us are user – friendly, easily accessible and keep the learners engaged through various innovative teaching methods. In order to maintain the quality of online education, the role of an educator is significant now. The more effective he / she is in reaching out and connecting to students in the virtual space will dictate the future of such online medium. Despite the progress we have been achieving in online education, we still have a long way to go when compared to the developed nations. This is where mobile learning comes into the picture. It holds the potential to transform the Indian education scene.

Objectives

- To understand the appeal of mobile learning apps among the target audience, viz. students by the way of questionnaire;

- To study the impact of Mobile learning (M - learning) on traditional method of classroom education;
- To learn about the existing short – comings of m – learning technology;
- To reflect on the possibility of co - habitation of classroom learning and M – learning

Research Methodology

The research paper is an attempt of exploratory research, based on the primary as well as secondary data. The primary data is procured by carrying out a survey in questionnaire form targeting students, in particular. The secondary data is sourced from journals, magazines, articles and media reports which are used extensively herein. Looking into requirements of the objectives of the study, the research design employed is of descriptive type.

The Rise of Cellphones and E - learning

The 'Information Age' was born as a result of opening up of the world through the World Wide Web and was aptly supported by the technological innovations and multiple gadgets. This technological boom has transformed the way in which people live their lives. It certainly has become easy and convenient in most aspects.

This technological advancement has affected all the sectors of our Indian economy. Since past few years, many educational institutions are striving towards digitizing education. E – learning, m – learning and distance education re some of the mediums that are successfully adopted by such institutions. Mobile Learning or m - learning, is a technology that allows persons to access knowledge anytime, anywhere. Now-a-days, mobile phones are owned by most of the households. The concept of m - learning (use of mobile devices to deliver education anytime, anywhere) could be a boon for India's education sector, more particularly, in the field of adult learning. The latest report (2018) by Telecom Regulatory Authority of India (TRAI) states that India has 1,026.37 million active mobile users — on 2G, 3G and 4G networks. Mobile customers in urban areas amount to 647.52 million subscribers and for rural areas it is 528.48 million mobile users.

The above statistics clearly show the good penetration levels of mobile devices in rural areas, despite their lack of other vital infrastructure. This positive growth of mobile phones, coupled with widespread availability and adoption of mobile broadband technology and market penetration of low-cost smartphones, the picture looks very promising for using mobile phones for imparting knowledge to learners in India. The biggest benefit of such method of teaching is the portability and convenience of learning at one's own pace. Mobile learning can take place with the aid of technological gadgets such as mobile phones, personal digital assistants (PDAs), smartphones, personal computers and small tablet PCs.

The freedom offered to a student through such a method of delivery of education is immense. The student can set his / her own pace while learning the lessons, can go back and revisit the lectures as per need, can interact with the educator online, refer the visual representation of concepts and theories without having to sit in a classroom. No matter in which part of the world a student is located, he / she can converse with the educator easily.

Due to increased mobile phone use, they are slowly replacing the desktop computers for performance of variety of tasks. Ever since the introduction of smartphones with smart features, the dynamics have changed altogether. People no longer have to use browsers on their devices as they have access to thousands of applications across numerous categories, including educational applications. These Edutech mobile apps are leading the students towards self – learning and self - development by inspiring and motivating them to journey on path of knowledge. These apps cater to students' basics demands by preparing them for various examinations by providing a blueprint in terms of preparatory lessons and revision plans. It has also encouraged working professionals to continue with their studies without hampering their work life.

Looking at the surging demand from the public, more and more Edutech companies are entering the market to cater to their demands. They are investing a sizeable amount towards development of new features for

their applications as well as incorporating the latest innovative trends to make them more user – friendly. Recently, the dialogue on offline applications has gathered steam. The reason for such conversation stems from the fact that not all users have internet connectivity on the go. This is affecting the chances of mobile app users to access educational content when they are offline. Such a demand has been taken into consideration and positive efforts are being made to make content available to the users even when they are offline. Many free as well as paid apps have this feature.

The Meteoric Rise of BYJU's – A Case Study

The talk of Edutech applications in India is incomplete without the mention of BYJU's. The startup, established by Byju Raveendran, is India's only edutech unicorn. Byju, has managed to build a profitable giant by following a simple philosophy – "Curiosity is necessary for learning!" Though the company is officially registered as Think & Learn Private Limited, it is prominently distinguished by its brand name, BYJU'S – The Learning App (launched in 2015). The startup, currently, is one of the few Indian companies to witness 100 percent growth in three consecutive years.

Mr. Byju himself defines his brand as being an "education media technology company". The meaning is quite evident by the content which is available on the app which has movie - like videos and games - like interaction. Gamification is the key concept here which has been implemented with astonishing success. It has almost transformed the manner in which students partake of educational content.

The future plans for the App giant seem promising as they look to expand to newer global markets. Simultaneously, they are determined to innovate their current content by adding more subjects, more languages and developing learning material for more grades.

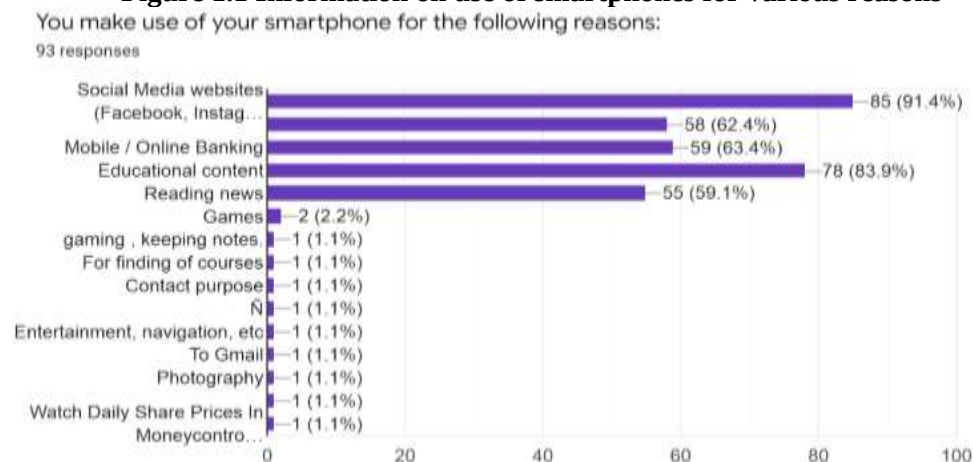
Findings of the Research

The findings revealed a positive attitude present in the minds of students when it came to mobile learning apps. The students believe the usage of such apps can boost their performance.

Research Universe	
Sample size	93
Method used	Random Sampling
Method of data collection	Primary data through Questionnaire
Method of data analysis	Percentage method

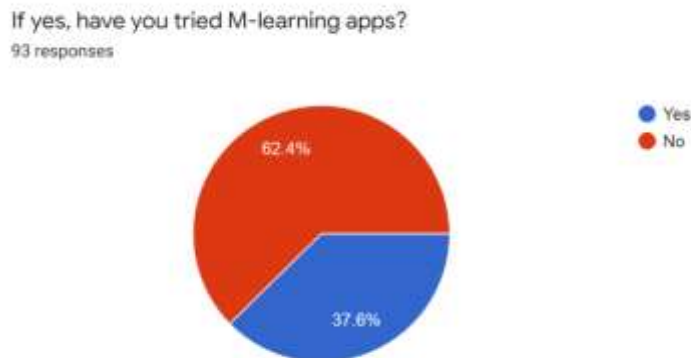
Some of the key questions asked in the survey are as follows: -

Figure 1.1 Information on use of smartphones for various reasons



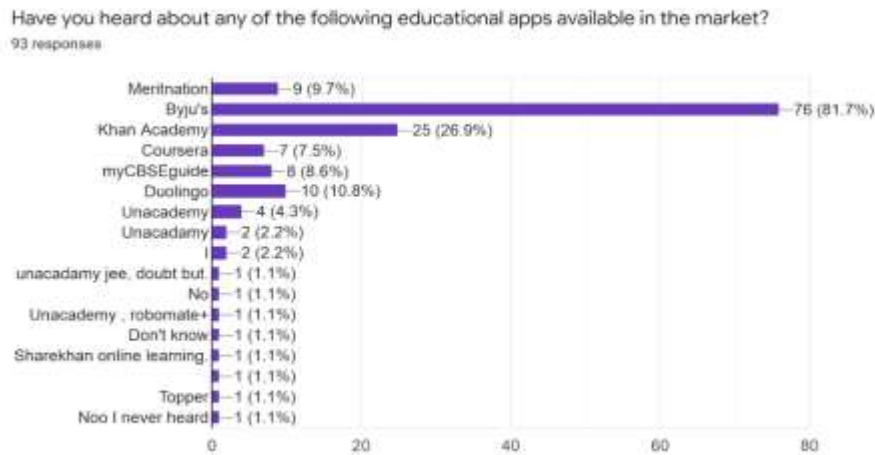
Source: Primary Data

Figure 1.2 Information on trial of M-learning apps



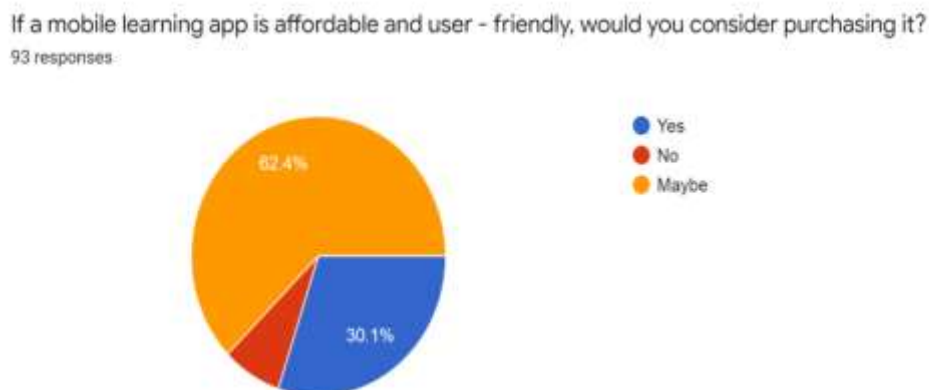
Source: Primary Data

Figure 1.3 Information on knowledge about M-learning apps available in the market



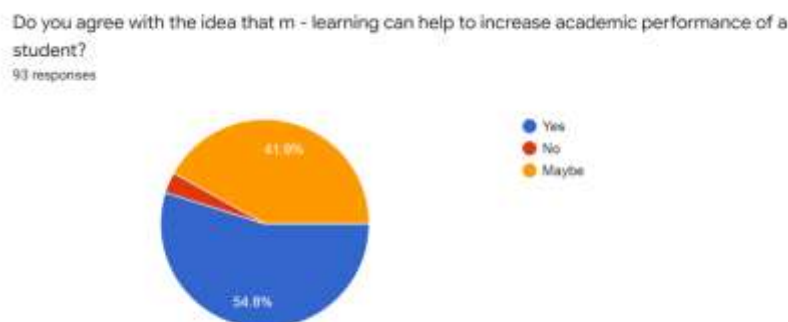
Source: Primary Data

Figure 1.4 Information on consent to use of M - learning apps



Source: Primary Data

Figure 1.5 Information on approach and attitude of students towards using M – learning apps for studies



Source: Primary Data

Challenging Road Ahead

Despite the positive signs exuded by the online learning platforms and mobile learning in taking forward the growth story of our online education sector, there are certain questions to be pondered. Some of them are discussed below:

1. **Resistance to Change:** - The resistance towards usage of mobile phones for learning is present among parents and teachers / educators as well. Parents are yet to get familiarized with such methodology and its authenticity. The educators resist integrating such technology into their teaching methods because of supposed additional preparations in terms of developing online content.
2. **Socio – cultural Barriers:** - The impact of mobile devices on social relations among persons is well established. With the control of personal devices such as a smartphone in the hands of a student, he / she is in probable of going off – track in terms of mobile learning. The frequent distractions and interruptions can derail the preparations. There are other related issues such as increased volume of storage of data, cyber bullying, data security, increased workload and round the clock availability of educators, etc. Along with these issues there is the matter of accessibility and cost issues for users, internet connectivity problems, excessive screen usage to be considered.
Cultural differences and matters of perception and attitudes need to be worked on before receiving acceptance to such technology and its future use.
3. **Inadequate support from Educational Institutions and the Management:** - The Managements of educational institutions need to be on – board in terms of implementation of m – learning in classrooms. Currently, there is a lack of vision and conviction when it comes to applying these latest techniques to current system of education. Proper policies, plans and training to educators are missing.
4. **Lack of attention to design:** - It is vital to first understand the features offered by a mobile device, for e.g., Camera, Media Player, Location, Calculator etc. These features need to be exploited to their full potential. Often the designers of these apps do not keep such considerations in mind while developing the content. User interface, screen design and educational design vary considerably from a regular desktop computer and mobile devices.
5. **Technical difficulties:** - The challenge arises due to rapid change in technology, programs and devices. Another significant challenge is posed by the physical features of a mobile device such as small screen size, insufficient memory, limited battery, network reliability, limitation of software applications, safety and privacy. Lack of quality technical support and maintenance at adequate times is a hindrance, especially, in developing countries.
6. **No standard evaluation methods available:** - There are no set parameters in place as regards evaluation of learners receiving education through such medium. Evaluation of technology and learning is necessary in

this respect. In absence of such evaluation, it will become problematic to adopt m – learning at a larger scale.

Future of M – learning

The way ahead for m – learning in India is promising as mobile technologies have penetrated in all walks of life, people have become well – averse in using mobile devices for their multiple needs. The time is right to upgrade our current education delivery system by undertaking various tech – awareness programmes at all levels of society. Joint efforts by the government agencies and private players in the educational sectors have to be combined effectively to bear results.

Numerous initiatives are taken by the government to promote online learning. The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology along with the Indian Institute of Science, Bangalore in 2003. The aim of NPTEL was to develop curriculum - based video lectures and web courses to enhance the quality of engineering education in India. The success of this programme has led to setting up of several such programmes across India by both public and private parties.

The Ministry of Human Resource Development (MHRD) has launched a huge Massive Open Online Courses (MOOCs) platform popularly referred to as SWAYAM (Study Webs of Active learning for Young Aspiring Minds) that gives various online courses for school and further education.

A single point repository of e - resources called “e- PATHSHALA” containing NCERT textbooks and various other learning resources has been developed for showcasing and distributing all educational resources including periodicals, textbooks, audio – video and a spread of other print and non-print materials.

The MHRD has also developed a dedicated Digital Infrastructure for Knowledge Sharing (DIKSHA) platform to provide supplementary learning material for students and for upgrading the skills of teachers.

The biggest advantage which we find when it comes to the above mentioned initiatives of Government is that the content can be easily accessed on mobile devices.

The Edutech companies also have to keep on innovating and improve the features of their apps to keep the students engrossed in such learning style. They also need to respond to the expectations and demands of their customers as they evolve.

Conclusion

It can be concluded that m – learning is going to remain viable and widely used for spreading knowledge. The right execution of this task rests on the participation of educators / teachers and their trust in the potential of this technology. With adequate training and comfortable atmosphere being present in and out of the classroom, both, educators and students can reap the benefits of this technology.

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