

# Rural India in Era of Technology Education

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**Abstract**— The education system of a super-power aspirant India needs to go through a great amount of change to keep step with the education scheme of developed nations where digital education is the model era. The current government's Digital India programme shall place special importance on the development of teachers to enhance schoolings and ensure uniform quality of teaching through the country. We know that technology cannot change teachers, but only complement them. The key lies in using digital platforms and solutions to deliver safe and quality content and more essentially provide access to quality teachers. The educational technology shall change education for well – make it more reasonable and accessible. This more significant in the Indian context because we have a huge deficit of access to high-class education till college level due to a number of apparently impossible challenges, extending from geographical scattering to socio-economic condition of the learners who attend a majority of Indian educational institutions. Also, the cost of educating one of the world's highest populations has been gradually increasing and there is hope that technology may make education reasonable for those who are so far unable to make use from the same.

**Keywords:** E-Learning, Education Technology, Software Technology, Multimedia

## I. INTRODUCTION

Educational technology will be employed in the spread of useful information, the training and retraining of teachers, to improve quality education, sharpen awareness of art and culture and inculcate abiding values etc. both in the formal and non-formal sectors. (NPE-1986). Technology in education is defined as an array of tools and technologies that help in better understanding of the teaching-learning process. Educational technology is the study and right practice of easing e-learning, which is the learning and enlightening performance by creating, using and dealing appropriate technological courses and resources. The earliest innovations and successful educational technology business models were created around providing software and hardware to make the classroom experience better. A percentage of this is about making multimedia centered study material, and having computers and screens in classrooms where audio-visual material can be practice to teach. Providing hardware and multimedia content to make classrooms more lively, more interactive and to reduce dependency on the quality of teachers as finding good teachers is one the biggest challenges especially in rural areas. India has a lack of content inventors working on creating multimedia education material in local languages while there are some content inventors when it comes to English and Hindi language though limited. The new government at the centre has been emphasizing on e-learning to be introduced in all schools, but the biggest challenge is of sourcing suitable multimedia content which is regularly revised and updated. If a number of fine content

inventors cannot be start to work on study material on a sustainable basis, e-learning will stay only a dream in India.

### A. Educational Technology Projects in India:

The Government of India in the Ministry of Education and Social Welfare understood the status of Education Technology for Qualitative development of education and encompassed the Education Technology Project in its Fifty Five Year Plan in 1971.

### B. This project had four sub-schemes as follows:

- Setting up an Education Technology Unit in the Ministry of Education and Social Welfare.
- Establishing a Centre for Education Technology (CET) in the NCERT.
- Assisting States for setting up Education Technology Cells and their programmes on a 100% basis.
- Strengthening a few education institutions for undertaking Education Technology Programmes.

Accordingly, the unit was started in the Ministry since 1971 and a CET in the NCERT was set-up during 1973.

Education Technology Units come into being different states from 1972-73 onwards. The Division in the Ministry made all planning, policy-making and issuing funds for implementation of the Educational scheme and the CET in the NCERT started.

### C. Functioning in the following areas:

- Systems designing and implementation.
- Prototype production of suitable hardware and software.
- Training in different areas of Education Technology.
- Research and Evaluation.
- Collection and dissemination of information, data and consultancy services.

The Education Technology scheme was conceived as a broad-based and collective effort between the Ministry of Education and Social Welfare, the Ministry of Information and Broadcasting, the Indian Space Research Organisation and other concerned organisations. It is underlined the importance of inter-agency coordination, systematic planning, scientific evaluation and effective utilization. Operationally the project required to extend, the benefits of technology to enormous groups, predominantly those in rural areas. It intended at improving the value of education at all levels, to reduce expenditure and sluggishness and to introduce new methods of teaching and innovation. Recently, Information and Communication Technology (ICT) for education, an initiative by UNESCO, conducted an extensive consultation to identify the competencies that teachers should develop to use technology effectively in the classroom. It is fundamentally an umbrella tenure that includes all communication technologies such as the internet, wireless networks, digital television, satellite communications, cell-phones, computer and network hardware and software; as

well as the equipment and services associated with these technologies, such as videoconferencing, e-mail and blogs etc. that provide access to information.

#### *D. How is technology being used in schools in India?*

Technology is frequently seen as a clarification to improving learning and teaching, but what precisely does this look like in Indian education system? Which types of technology are being used? Does technology really improve learning in this context, and if so – how? Can technology be effectively used in government and low-income private schools in rural India? To reply these questions, British Council India and Central Square Foundation recently propelled a joint publication Teaching and technology: case studies from India edited by Dr Gary Motteram from the University of Manchester, UK. 22 case studies were selected from over 430 submissions following an open call.

The selected stories highlight the advanced ways in which tutors, schools and organisations are using technology to progress student learning and teacher progress across the length and breadth of India. The collected data highlights a number of interesting structures. Technology is repeatedly used to show their apprentices videos or images are often used to show concepts more evidently. This is mainly predominant in science classes, but also used in social sciences and English lessons. Many tutors give their students tasks and projects in which they have to study research topics using the internet and then co-create presentations of their results. Such tasks can also advantage learner self-sufficiency, as learners are essential to find things out for themselves somewhat than trust on the tutor and textbooks. This also aids to grow digital literacy and internet navigation services. There are numerous examples of exploded classroom approaches, with tutors asking learners to watch videos or read articles before coming to class, so that class time can be used for going into additional complexity and clarifying any confusions.

A number of organisations goal to rise the quality of education obtainable to disadvantaged learners by using tablets, projectors, videoconferencing and other technology to maintenance their learning. Numerous teachers mention how they use technology for their own specialized development, such as take part in social media groups of practice, following enormous open online courses (MOOCs) and using the internet to deepen their own subject knowledge. This publication studies expose that there are a lot of passionate teachers and organisations using technology to boost learning, and aims to motivate further action from others working in related contexts.

## II. WHY TECHNOLOGY IN EDUCATION

### *A. Access to Verity of Resources:*

With the support of technology, it is informal to provide audio visual education. The learning resources are existence expands and extend. Now with this bright and vast technique as part of the IT curriculum, learners are encouraged to regard computers as tools to be used in all features of their studies.

### *B. Enhancing Learning Environment:*

The completely new learning atmosphere is changing process of teaching learning by adding elements of energy to learning atmospheres including cybernetic environments for the purpose. Critical thinking, research, and evaluation skills are increasing in importance as students have cumulative volumes of info from a variability of sources.

### *C. Anytime & Anywhere Learning:*

With the help of technology the step of communicating knowledge is very fast. One can study whenever he wills regardless of whether it is day or night and regardless of being in any part of the world. Internets provision thousands of unlike kinds of operative and tentative services one of which is online library which can be used to get sufficiently of data.

### *D. Classroom-based distance Courses:*

This kind of technology became very popular in the late nineties and remained in use throughout the last decade. Satellite beaming of live classes or VSAT, study centres equipped with hardware where students work together with a teacher teaching distantly became very common for a lot of secluded union lectures. Even the Indian government has tried to promote this model in the past with help from IITs and EDUSAT was a venture in this line. However, while low cost and high speed of internet have made this technology more viable and VSAT unnecessary, infrastructure price of study centres and real estate prices work as a restraint on this model.

### *E. Social Podium for a Class to Relate Online Study:*

Peer to peer learning can be actual important, and a class must continue to interrelate and learn collaboratively even afterward class hours. This idea led to many social learning platforms to come up. Many social knowledge stages like Grockit, remix learning.com have achieved marvelous achievement. In India, pagalguy.com is a good example, but there are not too many other instances of social learning, especially for primary and high school education. The school boards can certainly organize a lot in this esteem.

### *F. Mobile-based Education Management Systems*

Typically in India, more people have access to smartphones with the internet as opposed to computers with broadband connections. This is a big reason of participating expressively in mobile-based learning technology. There is no doubt that putting learning resources in the phone itself turns it into a very useful tool. Mobile-based courses have to be optimized for a smaller screen, lower computing power, and slower internet. This is a difficult task, but several Indian startups have got this right.

### *G. Learning apps:*

Educational apps are very general with lots of android and iOS device users all over the world. There are apps that can help one to increase reading speed, or reduce the fear of mathematics. The element that the price of tabs and smartphone is coming down ominously over the years and mobile internet is becoming very cheap – is very important in this respect. How amazing it will be if Indian children are capable to learn skills and progress their linguistic,

mathematical and cognitive abilities effortlessly and get access to a world-class education at a very low cost through apps. However, what requirements consideration at the moment is that Indian children get admission to content that is related to India, localized in its context and something that Indian kids and their parents can link to and solve their problems with. This is where an important gap leftovers and Indian financiers and teachers must be encouraged to contribute in the process of emerging such India specific apps and content.

### III. CHALLENGES

In spite of early enactment of technologies in Education system, India still faces difficulties for the innovative technologies in education. Several of them are:

- Not adequate or limited access to computer hardware & computer software in education organizations
- Lack of time in school timetable for projects comprising use of technologies
- Lack of suitable technical support for education organizations
- Less teacher training prospects
- Lack of knowledge about ways to participate technologies to enhance curriculum
- There is also a negative surfaces of new skills used in education. Many ethical queries and problems arise with this use of the latest technologies in education.

### IV. CONCLUSION

Technology is gradually and progressively making an expedition in education. Knowledge is no more restricted to books and the use of platforms such as websites, apps, videos, live chats, etc., have taken it to a different level. A lot of schools and colleges – mostly in step 1 and step 2 cities – have included technology to make learning fun and interactive. Education Technology or ‘ed-tech’ as it has been labeled now, is a rising sector. Interweaving technology with education seems to be helping students at all levels. Many educators in the city swear by instructional videos while parents are progressively opening up to the possibility of a platform which may help their areas learn something new in an advanced manner. The use of education technology is not limited to cities and metros, as one might believe. It is increasing its base to step II and step III cities as well. The way ed-tech has changed is interesting to see. While initially it aimed at providing a fun substitute to learning activities in terms of education-related games and platforms in general, they have now come all the way to counting technologies dedicated to attractive learning and education itself. Besides targeting to make students familiarize better to the quickly digitising world around them, ed-tech also helps grow inventiveness as well as personalising content suitable to the needs of every child based on continuous appraisal.

### REFERENCES

- [1] Kessler Sarah, 2010, <http://mashable.com/2010/11/22/technology-in-education/>
- [2] Richey, R.C., 2008, Reflections on the 2008 AECT, Definitions of the Field. TechTrends

- [3] Durham University News, 2012, [ur.ac.uk/news/newsitem/? itemno=15991](http://www.durham.ac.uk/news/newsitem/?itemno=15991)
- [4] Jagannath Mohanty, Modern Trends in Indian Education, Second Revised & Enlarged Edition, 2004, Deep & Deep Publication Pvt. Ltd.
- [5] Research Report of NCERT, 2009, [http:// www. ncert. nic. in/new\\_ ncert/ ncert/ rightside /links/ pdf/ focus\\_ group/ educational \\_ technology.pdf](http://www.ncert.nic.in/new_ncert/ncert/rightside/links/pdf/focus_group/educational_technology.pdf)
- [6] ICT in Education in India, 2012-13, [http:// www. icbse. com/ict-education](http://www.icbse.com/ict-education)
- [7] Research Findings and Implications for classroom Practice (Texas Instruments), 2005, [http://education.ti.com/ sites/US/ downloads/ pdf/CL2872.pdf](http://education.ti.com/sites/US/downloads/pdf/CL2872.pdf)
- [8] The National Policy on Education (NPE,) 2009, [www. ncert. nic.in/ oth\\_ anoun/npe86.pdf](http://www.ncert.nic.in/oth_anoun/npe86.pdf)