

“Technological Transition and Online Education in India- A Conceptual View”

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Abstract

Over the decades, education has undergone a sea change in India. The traditional method of education has become outmoded; education is all about technology enhanced learning, distance education and online training. The growth of internet penetration and smart phone access has led to the surge of e-learning. This technological transition has led online education pave its way within the country's learning ecosystem. Distance is no longer an obstacle. Choice of course is no more a hurdle. A learner can choose a course programme, online education-service providers would ensure, efficient accessibility of course program. Brick-mortar models are not completely obsolete but online courses are gradually gaining ground due to their flexibility and low cost. This paper mainly investigates the challenges and opportunities put forward due to technological transition and the road ahead.

Key words: e-learning, education, transition, internet, technology.

I. Introduction

e-Learning is a broad term that encompasses many teaching approaches, types of technologies and administrative practices. Online education involves usage of internet platform for delivery of educational content to the learner. Online education providers are mainly education technology companies, distance learning educational institutions, and traditional universities. India being a vast country with growing population provides immense opportunity in education sector. Online platforms and other ICT investments in education have shifted the focus from conventional learning to active and technology enhanced learning methodologies. It aims at resolving the most pressing issues of the Indian education system i.e. access to quality education irrespective of financial

strength or social condition.

I.I Historical Background

There is no single evolutionary evidence how eLearning originated. Initially, correspondence education system exist, where learner located in one geographical region apply for the course program and receives the learning material and assignment through post. Later on it is transformed into 'Distance Learning Program'. With the advent of computer and internet technology, online mode of education came into vogue. With the passage of time, as internet penetration grows, online education has gained momentum.

I.II Need for Online Education

The teacher to student ratio in India is very poor. This drives a demand for courses which can be

centralized available and can be taught without any physical presence. The demand for online education learning and the advancement in technology can very well support this new way of education.

I.III Aspects of e-learning

Despite the fact that, foundation of education is still reading, writing and listening, today's students need holistic education. So, what e-learning can dish out?

Live instruction:

Certain curricula may require specialised pedagogue. Through live broadcasts, these pedagogues can remain in one location and provide lesson to many students in other locations.

Video content delivery:

Pre-recorded content such as presentations, lectures, documentaries and other audio-visual content may be delivered and stored so that the material can be viewed as and when needed.

Student-to-teacher interactions (video-conferencing):

Students-teacher may connect with each other thorough video conferencing and can share their ideas.

Remote test administration:

Now-a-days standardised assessments are used to evaluate students on a level-playing field. Digital delivery mechanism can be used to conduct the assessments, which ensures secrecy and scheduling.

Up-to-date materials:

Current and updated contents are USP of online education. Digital delivery mechanism solves this issue when coupled with e-readers.

Self-learning:

e-Learning facilitates the concept of self learning. Learner can access the module as per his/her choice and can make best possible use of it.

The VSAT advantage

VSAT (Very Small Aperture Terminal) is a satellite communications system which handles data, voice and video signals. It is now being popularly used in distance and online education to deliver the course programmes to remote and far flung areas. In addition to this, it offers distinct advantages of cost, coverage and installation.

I.IV Segments of Online Education

The Online Education market in India is categorised into two segments:

- 1) **K-12:** A sum of primary and secondary education
- 2) **Higher Education:** Diploma, graduate, post graduate and doctorate programmes.
- 3) **Add-on-Courses:** It includes skill based short term specialized courses and preparatory programmes.

Service providers

- Educomp
- Everonn
- IGNOU

- NIIT

Other prominent service providers

- Dexler
- Edurite
- Adobe systems
- Scholastic
- Cisco Systems
- Desire2learn
- Ellucian
- Intel
- Three Rivers Systems
- Embibe
- HCL Infosystems
- LearnNext
- Meritnation
- Simplilearn
- Sikkim Manipal University
- TCY Learning Solution

II. Challenges in Online Education Services

II.I General Challenges faced by online instructors include:

- **Technical skills:**

An instructor must possess the technical skills required for online education platform. It requires developing high-tech and media skills that enable the instructor to use the available tools and technology to enrich and enhance the educational experience for their learners.

Instructor-Learner interaction:

Objective can not be achieved until and unless this platform facilitates mutual interaction between the learner and the instructor and between the learner and other learners in the course that promotes fruitful exchange and sharing of ideas and past experiences.

Cooperation:

Facilitating conducive and meaningful exchange of cooperation amongst students will be challenging one.

Learner's Engagement:

Active engagement of the learner is the key factor for any mode of education, learners engagement in online education is the challenging one.

Feed back:

Providing students with prompt feedback while maintaining a reasonable amount of workload (both for student and teacher).

II.II Challenges for Instructors

Lack of basic knowledge and practice to teach online or the assumption that no training is needed.

The assumption that traditional course can be translated into an online course without any modification.

Lack of acquaintance with the online environment and technology needed to teach online.

Ensuring online availability to the students on an extended basis electronically.

Catering to the timely responses and feedback to students.

II.III Challenges for Students

Self dependency for students.

Students must be self-motivated, and comply with

the deadlines.

To keep up with the pace of the course curriculum.

Real time feed back and prompt response.

Internet connectivity.

II.IV Challenges for All

Both learner and trainer must possess a minimum level of computer knowledge in order to facilitate online education.

Both learner and trainer must accommodate with the system otherwise course offering will be a failure.

Online connectivity and dependability on technology is lingering issue in online system.

Pre-conceived notion that online education will be easier.

III. Online Education Services Opportunities

III.I General Opportunities

Improve and upgrade Quality of Education

- Acquaintance with technology enhanced learning.
- Facilitates liaison among institutions, students, teachers, and alumni.
- Act as mechanism of grading system to measure and grade Students, Teachers, Educational institution.
- Improve and promote alternate education.

Improve Accessibility and convenience

- Online portal can be accessed 24*7.
- Database of study material (lectures, videos and tutorials) may be stored online.
- Facilitates distant learning education to remote and far flung areas.
- Open schooling facility for those learners who cannot attend regular mode.

Reduce the cost of education

- Economical mode of education.
- Encourage self and independent learning via online system which further reduces the cost of online education.
- Effective and suitable tools for instructor, institutions and examination boards to offer courses and conduct assessment.

Social

- Online education system overcome the physical barriers and offers anytime, anywhere -24*7 learning model.
- Online education system overcomes the barriers of culture and old tradition and opens the door of learning for girls.
- Encourage and facilitates adult learning.

III.II Opportunities for Instructors

- More number of student enrollment and participation across the globe.
- Innovative approach can be adopted to facilitate teaching and learning.

- Wide reach among students who may not otherwise be able to take online courses.
- The heterogeneity of learners in online education.
- Ease and flexibility in scheduling of classes as per instructor.
- Internet access enables 24*7 teaching.

III.III Opportunities for Students

- Control over learning.
- Self Independence, Increased interaction with instructor and other students.
- Suitable, Convenient and flexible mode of learning, especially for non-traditional students with jobs, families, etc.
- Saves time, effort and money.
- Safe for those who cannot attend conventional mode of classroom education.

IV. Road Ahead

Education sector has seen a host of reforms in recent years that could possibly transform the country into a knowledge economy. With human capital increasingly gaining importance in the overall development of the country, development of education infrastructure is expected to remain the key focus in the years to come.

Various initiatives are taken to boost and upgrade the growth of new education techniques, such as E-learning and M-learning, besides focusing on distance education learning.

In this regard, infrastructure investment in the education sector is likely to see a considerable increase in the years to come.

V. Conclusions

Technological transition has brought the world closer. Online education system facilitates educators and learners to exchange, share and propagate ideas and information. It provides ample opportunity to the stakeholders to work together on projects, around the clock, using multiple communication channels from across the globe. No doubt that technology has overcome many barriers but still taking into account the India's demography and huge population, holistic effort is required. Connectivity and speed will be critical for the success of online system.

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