Enriching Education through E-Learning

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Abstract: *In digital era, e-learning is a boon and plays a vital role in the development of education and future of students. The impact of advanced technology on education has shifted from conventional learning methods to e-learning methods. Various challenges in conventional learning methods which are repetitive, costly, limited to the classrooms, fixed timing and fixed concept for learning, can be overcome through online education. Technology expertise supplements traditional learning with web-based components and learning environments where the educational process experiences online education. This paper expresses the importance of on-line education in higher education and its impact on present Z-generation future. Major Indian Government initiatives and the target segments covered by online education also been detailed by the author. On-line learning will not only useful only for distance learning programs, but catching up with regular pedagogy of education.*

Keywords: Internet, Webinar, Google class room, MOOC'S, Digital-Education, Swayam, NPTEL, E-PGPATHSHALA

1. Introduction

Technology has brought a revolution in the scope of education in India. Advanced internet connectivity and rise in use of smart phone users, digital payments options, increase in participation at the government level have significantly aided in the growth of the digital market on-line education in India. Educational challenges through E-learning state that India is the second biggest E-learning globally after the United States of America. E-learning platforms available at present are helping students, educators and institutions in evaluating the performance as a whole are frequently being adopted by educational institutions in India. On-line education helps to train, evaluate skills through quizzing, interactive sessions, providing opportunities to solve queries through webinars.

Technology playing a major roles in all the sectors, the countries education sector is undergoing a revolution with the rapid internet penetration and availability of low cost mobile and hand held devices,. Technology continuously influencing the Educational industry in providing education to people at fingertips. The most successful fields are those which adopt to the changing times and meet the expectations of the society. Education system is one such which always adopt to the changes and meet the expectations of students, parents and society. Traditional schooling is now seeing an increased proliferation of virtual training materials on online courses. Digital education today is no longer limited to the four walls of a classroom. Virtual classrooms made learning easy, everywhere and anytime. The Digital education trends adoptive and collaborative learning where a student is engaged by practicing, experiencing sharing things and gaining knowledge in a collaborative environment. Technology is not only the solution to have an impact on learning and solve the big education problems in India but, find solutions to hurdles like affordability, accessibility, mode of delivery and content are indispensable. To Achieve this it is imperative that India focuses on digital infrastructure, ready access, quality E-content and affordability. The Government's focus is to integrate technology in digital learning for both urban and rural India. It is also looking at public, private partnerships to enhance technology and reach to rural and remote areas. Through technology, efficiency and transparency can be brought into schools by helping stake holders such as students, teachers, parents, administrators, streamline routine task, improve assessments and learner/teacher data collection.

2. Review of Literature

A recent UK- India business council report titled Meeting India's Educational challenges through E-Learning states that India is the second biggest e-learning market globally after the US.

According to Atul Kulshrestha, Chairmam and managing director, Extramarks, "Digital education today is no longer limited to the four walls of a classroom. It has paved way for virtual classrooms, making learning attainable and providing easy access everywhere and every time."

According to Kaushik Bellani, MD McGraw Hill Education India a digital learning provider says about his learning material and tools, " the aim is to use educational technology to help students and teachers learn and teach through online learning multimedia tools like SmartBooks, Learnsmart, Access Science and Access Engineering."

"Digital learning as a format can work better across levels, courses and streams than conventional format", says Aditya Malik, CEO and MD, Talentedge.

Khan (1997) has defined online learning as the delivery of instruction to a remote audience using the web as an intermediary. Elaine Allen, Jeff Seaman (2011) have defined Online courses as those in which minimum 80 percent of the course content is delivered online and Face-to-face instruction are those courses in which less than 30 percent of the content is delivered online.

According to Stack, Steven Dr. (2015), online education has proliferated in the last decade. His research has not found any major difference in the scores of the students taking online course and face to face classes. Another research done by Dr. Fahad N. Al-FAHAD investigates the students' attitudes and perceptions of 186 University Student's from different colleges towards effectiveness of mobile learning

in their studies. Their research findings indicate that students perceive Mobile technologies as an effective tool in improving their communication and learning.

Herman, T., & Banister, S. had done a research on comparison of cost and learning outcomes of traditional and Online coursework. Their findings shows that online course engages students in the learning process, supports strong student learning outcomes, and saves cost for the university also.

According to a report by Google and KPMG, the online education market in India at the end of December, 2016 was $247 million and it will reach $1.96 billion by 2021. Also India's online education market is the second largest market after US. The findings of the report also states that the paid user base for online education services will also grow at least by six times i.e. approximately 9.6 million users by 2021.

3. Conceptual Framework

Today, India has the latest e-learning trends in the education sector that are used by developed countries now, like Distance education (Postal, Radio, TV), E-learning, Gamification, Open Educational Resources (OER), Cloud-based e-learning, Big Data in on-line education, Massive Open Online Courses (MOOC), Microlearning, Mobile learning etc.

Transforming traditional education into E-learning in India:
Earlier, hour-long traditional classroom sessions now transformed into online/digital education for both students and teachers. According to KPMG report, the Indian online education industry will reach $1.96 billion by 2021. The user base of online education is expected to grow up to 9.5 million users in 2021, at a CAGR of 44%. E-learning has become one of the learning among millinniarls in India. Online learning platforms are assisting students to get personalized advice from educators or experts, bringing quality education to students. The online education is fun-filled with quizzes, challenges, practical-oriented and interactive; it is a fact that e-learning facilities are engaging students than class room learning.

Students are able to access e-learning at low cost with advent of e-learning trend/facilities. E-learning methods are helping students to focus on building a career, get ready for job.

Online Courses

MOOC'S:
With the comprehensive literature review, the key factors identified to boost the online education in India. In internet penetration, low cost of online education, ease of doing course, initiative by Government, employer's recognition and bridging gap are the key factors for the growth of online education. MOOC'S (Massive open online courses) are online courses which are aimed at unlimited participation as offer open access through the web. MOOC have gained lot of popularity since 2008, the top five MOOC providers by

register users include Coursera, edX, XuetangX, Udacity and Future learn.

SWAYAM:
Ministry of HRD has initiated a programme named in "SWAYAM" (steady webs of active -learning for young aspiring minds)i.e. designed to achieve the three fundamental objectives of educational policy i.e. Access, equality and Quality. The course section of SWAYAM is divided into four quadrants (i) Video lecture (ii) specially reading material that can be downloaded and printed (iii) self assessment test through tests and quizzes and (iv) online discussion forum for clearing the doubts. SWAYAM has been empowered by Microsoft and will host two thousand courses with 8000hrs of learning.

NPTEL
NPTEL- A join initiative IIT's (Indian Institute of Technology) and IIS (Indian institute of science) funded by ministry of Human resource development under national mission online education through information and technology provides E-learning through online web, and video based courses in engineering, science, and humanities streams. Over 800 courses are complete and made available in NPTEL website under twenty disciplines.

NDL:
National digital library under MHRD initiated NDL a pilot project to develop a frame work of virtual repository of learning resources with single window search facility.NDL is designed to hold content of any language and provides interface support for leading vernacular languages.

E-PGPATHSHALA
E-Pgpathshala, this is one of the initiatives by MHRD under national mission on education through information and communication technology (NMEICT) which offers high quality curriculum-based, interactive content in 70 subjects across all disciplines of social sciences, Arts, fine arts, Humanities, Natural and Mathematical sciences, Linguistics and languages. It is a single gate way to 2523 modules which includes e-text, videos, tests etc.

E-Gyankosh
Indira Gandhi National Open University (IGNOU) is the central Open University that offers distance and open education to millions of learners in India. IGNOU has initiated establishment of national digital repository of learning resources names e-GYANKOSH. This repository envisages to store, index, preserve, distribute and share the digital learning resources of Open and Distance learning (ODL) Institutions in the Country.

As the overlap of the traditional, and online modes of education is becoming more and more inevitable, it is to our students to make their education relevant to their future through ingenuity, passion and careful planning. In this era of digital learning, technology plays a crucial role in the process of knowledge, dissemination. There are many application technology tools available in the market.

Few digital learning tools are:

(i) Google classroom:
Google classroom is a free web service designed to help students in drafting mass distribution and grading assignments in a paperless form. Google classroom is a platform to share the files between the teachers and students. Google classroom combines Google drive for assignment creation and distribution, Google documents, sheets and slides for writing, Gmail for communication and Google calendar for scheduling.

(ii) SEESAW:
Seesaw is a user friendly learning portfolio tool that helps students to document independently that they learn in the classes. Students use seesaw to store their projects in the cloud. Seesaw is made available on several different devices such as chrome books, computers, IOS devices, Android devices as well as kindle devices.

(iii) Edmodo:
Edmodo is an educational tool that connects teachers and students, and is assimilated into a social network. In this one, teachers can create online collaborative groups, administer and provide educational materials, measure student performance, and communicate with parents, among other functions.

(iv) Socrative:
Socrative is a system that teachers create exercises or educational games which students are solving and submitting using mobile devices, whether smartphones, laptops or tablets. Based on the results teachers modify the subsequent lessons in order to make them more personalized.

(v) Projeqt:
Projeqt is a tool that allows the teacher to create multimedia presentation, embed interactive maps, links, online quizzes, Twitter timelines, and vides, among other options. The teachers can share academic presentations which are adopted to different devices.

(vi) Thinglink:

(vii) Thinglink allows educators to share the texts, etc. Through social networks.
Few other tools are, Thinglink, TED-Ed, etc.

Websites like KHAN Academy, Epathashala, Kahoot, are few which enhances students engagement and creates a dynamic, socio fun educational environment. Few other tools which are used Ding talk is a free communication and collaboration platform that offers video conferencing, calendar, attendance management and instant messaging. Audio video lectures, social networks-chatrooms, forums, or social media sites such as Twitter, Facebook, Stumbleupom etc allow students and teachers to communicate quickly and easily.

Online learning provides students who wish to have greater comfort, and versality in pursuing a course, many more learning choices. Students are mainly benefited by online education

(i) Minimal financial resources to access various learning tools
(ii) Video conference tools makes online learning even more immersive
(iii) Accessing class materials and submitting work is very convenient through online education
(iv) With 74% of people suffering from speech anxiety according to the national institute of mental health, online education tends to faster better class participation
(v) Students can spent much time thinking about and honing their own ideas which leads to greater confidence and more elegant discussions
(vi) Diversity in learning science stream students can learn Arts and languages through online
(vii) Online education is one of the alternatives to bridge the gap between what industries expect and what the educational institutes are delivering. It offers an Opportunity to enhance skills through advance courses available in different domain.

4. Challenges in Online education

1) Insufficient digital infrastructure: High speed internet and stable power supply are the biggest problems in Digital infrastructure that is faced in India
2) Limited social interaction: For courses which are self-paced, there is a very less discussion among peers. Campus atmosphere is not there to improve social interaction which hinders career growth
3) Motivation: Self-motivation and discipline is required to complete the assignments and upload them timely, the dropout rate in online education is very high because of difficulty in working independently, staying organised and meeting deadlines in online programmes.
4) Language of the course: The content offered by most of the online courses either in in English. India is a multi-linguistic country, and vast majority of people come from rural areas. So online education struggles with the online content.
5) Loosing track of deadlines are high: Students have to self motivated and focused in online education
6) Hidden cost: Online education cost is cheaper but initial expenses like installation, recurring maintenance as electricity and internet charges will be high.
7) Learning experience can be dis satisfactory: Some times because of malfunction of software or hardware. Over dependence on technology can be a major drawback in distance learning mode of education.
8) Creditability decrease is a questionable in online education. Because of the number of scam operators also raising in parallel with genuine online education platforms.

5. Suggestions

- E-education to reach rural areas, Government need to provide high speed internet through multiple networks.
- To have better quality of education the Government should collaborate with higher education institutes and top International institutes to generate linkage between national research laboratories and research centers of top institutions.

- India with vast linguistic diversity, should offer open source software with less cost to students.
- Government can introduce E-learning as a policy. Disgusting e-learning industry from IT enabled services.
- Faculty can be given training on latest On-line tools to enhance their skill in On-line teaching.
- Interactive sessions by faculty help to enhance the knowledge by sharing feedback of the students and improves the relationships of teacher and student.
- Educational institutions can improve quality and reputation, by updating latest online tools in the institutions, improving infrastructure facilities for effective online education.
- Institutions can attract students by providing good infrastructure and networking facilities.

6. Conclusion

India would be dominant in the times ahead in the future of E-learning. New dimensions in education through E-learning, within and beyond curriculum are looking for further opportunities of becoming more practical. Creating an atmosphere suitable for e-learning is a challenge. The instructor and the learner need to shift their methods of teaching and learning. Educational Institutions need to have suitable strategies in place for successful deployment of the e-learning process. Transformational approach from primary to higher education level to make Indian Educational system globally more relevant and competitive. Graduate students should be provided with courses that gain excellence, deeper knowledge of subject so that they will get jobs after recruitment in the companies which would reduce unnecessary rush to the higher education. Online education can change the whole future scenario in education if it can be implemented in joint collaboration with industry, universities and government. Drastic changes in course curriculum are required to bridge the gap so that students are industry ready after passing out. Education process needs to be changed by making it more practical with the use of technology. Also course should be designed in different language to increase their reach and more opportunities for youth of rural India. Innovations are required to design ways to increase the social skills of online learners.

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