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Virtual Learning, Prospect and Retrospect: A National View

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Abstract

In the era of digitalization, education is no longer a matter of formal learning program confined within four walls of the classroom. Modern and sophisticated technology is now playing a pivotal role in bridging the gaps of knowledge through virtual mode of learning. It became an effective tool for the development of education sector in many countries. Technology based learning is now widely accepted by touching every aspect of the society. To promote and propagate online learning for the younger masses in rural and neglected areas, Government of India has initiated learning platforms like- Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) and Massive Open Online Course (MOOC). These programs are of a Massive Open Online Learning format and look to give the best educators for learners across the nation with ICT solutions for cross over any barrier amongst urban and rural education. In this Techno maniac age E-learning is going to be the next generation learning. Through online learning Instruction, evaluation and degree delivered completely online to the learner. Many of the Indian Universities are providing online courses and conducting their entrance examinations though online. The flexibility and accessibility of virtual learning through distant and open mode has been a remarkable event especially reference to India where majority of population living in rural/remote areas.

Keywords: Knowledge gap, E-learning, SWAYAM, MOOC.

Introduction

"Never stop Learning, because life never stops Teaching"
-Anonymous

In the era of digitalization, Education is no longer a matter of formal learning program confined within four walls of the classroom. Modern and sophisticated technology is now playing a pivotal role in bridging the gaps of knowledge through online learning. It became an effective tool for the development of education sector in many countries. Technology based learning is now widely accepted by touching every aspect of the society. Many of the Indian Universities are providing online courses and conducting their entrance examinations though online. The flexibility and accessibility of online learning through distant and open mode has been a remarkable event especially reference to India where majority of population living in rural/remote areas. Virtual Learning is as an approach to instruction and learning that utilize Information and communication technologies to communicate and collaborate in education. The amalgamation of technological advancement with conventional teaching is boosting the transfer of learning in a faster rate than the ordinary classroom teaching. Virtual learning equipped with web-based software programs and interactive learning conditions where instructive procedure is experienced by the learner in self learning mode. This mode of learning has wide application in distance learning programs and is playing an important role in education during Covid-19 situations for all range of learners. Recently this type of learning is familiar and globally accepted as an alternative source of learning. Starting from knowledge dissemination to evaluation, training to teaching, everything is going in virtual mode currently in education by accomplishing the educational goals.

Education Scenario in India

After independence in 1947, the Govt. of India had the challenge of bringing uniformity in educational system and providing education to large segments of the population. Due to various schemes undertaken by India to improve the literacy rate. These measured have resulted in increase in literacy rate from 65.38% in 2001 to 74.04% in 2011. The

deprived sections provided with online or e-learning through distant mode. Learner's satisfaction rates increase with online learning compared to traditional learning, along with perceived ease of use and access, navigation, interactivity, and user-friendly interface design. The traditional learning system had been used in India and was sustainable for long. But the educational needs are changing and a global education standard is imposing itself and forcing the Indian education system to undergo many changes. Online learning is a useful medium through which India can attain the goal of reaching the unreached in rural areas, motivating the learners for higher education as well as woman empowerment through their education. In the current super fast era and globalised world, education needs to meet the additional demands of present time such as creating globally competent work force.

Concept and Aspect of Virtual Learning

Virtual learning is electronic learning with the help of internet, and typically this means using a computer to deliver part, or all of a course whether it's in a school, college, part of training or a full distance learning course. Virtual Learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely.

Education is what remains after one has forgotten what one has learned in school."

-Albert Einstein.

The words of Einstein indicates the truth of real education, the idea mirror the way that successful education is lifelong learning and it is a continuous process. Actually the essence of instruction has encountered a significant evolution throughout recent decades in many forms. The conventional teaching methods and classroom has transformed into a dynamic learning environment in the advent of technology by adopting the virtual mode of learning which is self paced, instant and joyful.

In other words, virtual learning can also be described as learning that is delivered via the internet, ranging from distance education, to computerized electronic learning, internet learning and many others forms. So virtual learning can be defined as courses that are specifically delivered via the internet to somewhere other than the classroom teaching. It is interactive learning in which learner can also communicate with teachers, professors or other students in the class. Sometimes it is delivered live; where one can "virtually" raise hand and interact in real time and sometimes it is a lecture that has been prerecorded. Normally, there is a teacher or professor interacting /communicating with learner and grading the participation, assignments and tests. Online learning has been proven to be a successful method of training and education. It is becoming a way of life for many citizens in our country e.g. farmers education, adult education, pre-primary and primary education as well as in higher education.

Online Education: Scope and Growth in India

The scope of open distance education in India is actually much wider. Apart from proper course works, some online learning portals in India are also conducting ridicule mock tests for various competitive examinations like engineering, medical, management etc. There are many online learning portals in India which are providing tutorials for school students also. Thus, the reach of online learning in India has expanded from adults to youth. The future of online learning industry in India seems to be vibrant as number of Internet users is growing in the country. The government and private sectors have taken many online learning initiatives. These initiatives have been met with a lot of enthusiasm and user acceptance.

The government has been taking some proactive measures in a regulatory and financial capacity to boost the online learning environment in India. India has also developed an Open University system to encourage distance learning. Indira Gandhi National Open University (IGNOU) was the pioneer and now there are thirteen open universities in India offering over 500 courses. Modern communication technology can be harnessed to effectively provide education through this medium. A distance education Council has been set up and a common pool of programs is available for sharing. Distance education with new information and communication technology promises to expand the frontiers of Higher Education as never before. This is because it costs 66 per cent less and the students need not leave their homes or profession. The internet and satellite technology are being put to use to further the cause of distance education. The Indian Space Research Organization (ISRO) is launching a dedicated satellite for educational purposes. Funds have been invested in setting up Internet kiosks in rural areas for the purpose of communication, which can be used for online learning initiative as well and can help in providing informal and vocational training.

Virtual Learning and Government Initiatives

Government is taking several steps to establish and provide people an open platform to communicate or learn virtual/online. A good online learning solution can help government in multiple aspects. A government can bring transparency in governance by way of a meaningful education among the people through online learning and e-learning to fulfill the dream of digital India. Right now, the Government has done it for the deprived and rural youths of our country by developing online several online portals for learning by using latest technology.

SWAYAM (Study Webs of Active –Learning for Young Aspiring Minds)

SWAYAM is a program initiated by Government of India on 15th August 2016 and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. This is possible through sophisticated and advanced IT platforms that encourages in developing considerable number of courses in virtual mode. The

major advantage is that all learners can access these courses from anywhere and anytime. Subject experts from different disciplines prepare these instructional courses in an interactive way and make it available for the learners across India. Most importantly all the courses available in this virtual platform are free of cost. So far, more than 1,000 subject experts and instructors from various fields from the nation have taken part in setting up and designing the learning modules over SWAYAM platform.

MOOC (Massive Open Online Course)

MOOC is the well designed and advanced learning centre, which intends to convey world-class online courses across the globe virtually. It is equipped with the latest educational technology and learning management system to cater the diverse need of the learner. It is designed with interactive text, video content and other learning modules that offer the learners a user friendly atmosphere of learning. Likewise, it provides an opportunity for virtual interactions with the peer group and also with the tutor throughout the course for guidance and improvement in learning. Providing flexibility in learning is making this course popular. It gives the freedom of choice to the learners to adapt courses from any of the top Universities that are offering the MOOC courses. Learners have the flexibility and opportunity to get certificate/degree from his/her desired University. Currently more than 3 crore learners enrolled in more than 2,000 courses in MOOC platform across the country.

Challenges to Virtual Learning

Teacher

Generally teachers are engaged in routine activities and struggles to prepare a quality virtual course content. Quality of the course needs time, financial and technological support. The Virtual content preparation needs a lot of effort and time for a teacher. It needs competency to arrange and design the course credits in a proper manner which is suitable for easy learning by the learner in virtual mode.

Student

Virtual learning many of a time boring and lacks sufficient motivation to attract the learner's interest. Since, the online learning method is self-paced and self-learnt, the attention length of the student may not be enough for him/her to learn a concept. Lack of engagement creates a passive mode of learning in virtual mode. Students also face technological limitations. Students face problems in practicing. The same time not all the learners are having proper devices or technological tools to access the virtual learning platforms.

Academics

Many of the times the online course has no impact on organization and are considered as degree distributing agencies. The quality of virtual courses, student's participation, delivery and assessment are under scanner. For those Institutions offering Virtual learning course, awarding a recognized degree for students might become imperative. Most students and their potential employers are happy only when a certifying endorsement is given. A fall out of the above could be escalating a number of Online Institutions offering courses with spurious certificates, which may not have any value.

Administration

Administration faces challenges in finding the perfect online learning course for delivery. It's very crucial for designing virtual learning courses for different generations in Online learning platforms over internet across geographical boundaries. The credit transfer plays a vital role and validation of the course and the legal implications of virtual learning come into play. This makes it all the more, tougher for the administering authorities to have a global acceptance, Validity and certification of the particular virtual course.

Proposed Measures

It's the duty of the Institution to find a virtual course that is dynamic, fun and interactive to prevent students from getting bored. Learners' interest and motivation should be the criteria while designing the courses. The virtual course must include all types of interactive training, with challenges and adventures, videos, storytelling, gamification, simulators to ensure practice and game-based learning. Student's technological limitations can be removed by providing multi-device courses and personal attention. Student's problems in practicing can be solved by the useful and practical courses that have simulator. The Virtual courses should align with the organization's objectives and measure them in a continuous manner. The course credit transfer can be useful for the learners to achieve their desired degree. Learning flexibility and assessment of the course should be designed keeping in the view of learners needs. High band width connection can remove the accessibility problems. Institution should train the teachers to access the technology for preparing virtual content and support the teacher by establishing technology labs and studios. Sufficient orientation and training can enhance the competency among the teacher to go for virtual mode of Teaching and learning. The courses having practicals should be monitored and assessed properly. There should be no compromise with the quality aspect and evaluation of the learner.

Prospect and Retrospect

There are several plus points in virtual learning. First, Users are able to proceed through a program at their own pace. Users can access an online learning course anytime, anywhere, and learn only as much as they need. Online learning can be accessed by Web browsing software on any platform. A training program can be delivered to any machine over the internet or intranet without having to author a program for each platform. Most computers have access to a browser, are connected to the organization's intranet or the internet. There is no need for a separate distribution mechanism. If changes need to be made to a program or courseware after the first implementation, these changes are made on the servers storing the program or courseware. Everyone worldwide can instantly access the update of information. There are no travel costs for bringing remote employees to a centralized workshop. Not only from a qualitative standpoint (i.e.

pedagogical by the use of a new method, personalization, learner autonomy, memorization and follow-up, operational by learning by opportunity and the speed of the learning updates, and organizational by creation of knowledge sharing community) but also from a quantitative standpoint (i.e. learning elapse decreases, learning cost may be reduced and learning effectiveness is increasing).

Besides the advantages of virtual learning, there are some limitations too. The first and fare most is Limited bandwidth. It means slower performance for sound, video and intensive graphics, causing long waits for download that can affect the ease of the learning process. Future technologies will solve the problem however. Besides this, there are some other drawbacks with online learning. There is a general concern that as we move towards more computer usage, a terminal will replace a friendly face. Gradual introduction of online learning or the use of blended learning may be the answer to this concern. Online learning programs are too static. The level of interactivity is often too limited. Online learning systems take more time and more money to develop than expected. This is indeed the case, as it is with any new technology that is implemented. It is easier by starting with an easy program and building on success. Not all courses are delivered well by computer. Some training topics are not best served by computer based training and require a more personal touch. Team building issues and dealing with emotional issues are two examples. Progress in the field of online learning has been relatively slow when compared to other fields. A lot of web-based systems are not better than systems that were developed many years ago. Still, focus is often on how to develop a lot of courses and not on how to improve the quality of learning.

Conclusion

The learning dynamics is changing significantly in the 21st century with the technological advancements. Virtual learning opened the gate of knowledge resource resulting that learning is now at our fingertips. This made learning as a global phenomenon across the boundary. At the same time efforts are to be made to make virtual learning more practical and value based. It must reach to every learner with internet connectivity. Virtual learning is contributing in raising the level of education, literacy thus ultimately economical growth of our country. Virtual learning creates ample opportunities for all to access and avail learning irrespective of their location. This learning is a growing wave and no doubt it will flood everyone with information and knowledge in India. Virtual learning has a great scope to reach the un-reach section of the society. Development and growth of a nation is directly associated with the education of the country and virtual learning is going to fill the gap. India can achieve the great height of education and growth with quality human resource by jointly venturing with developed nations on online learning and training for the development of our education sector.

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