International Journal of Innovative Research in Information Security (IJIRIS) ISSN: 2349-7009(P)
Issue 09, Volume 3 (December 2016) www.ijiris.com ISSN: 2349-7017(O)

DIGITAL EDUCATION IN INDIA

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ABSTRACT-- When it comes to online learning in education, the model has been pretty straightforward - up until the early 2000s education was in a classroom of students with a teacher who led the process. Physical presence was a no-brainer, and any other type of learning was questionable at best. Then the internet happened, and the rest is history. E-learning is a rapidly growing industry, the effects of which we can trace back to the 1980s and even well before that (in the form of distance learning and televised courses).Now that affordable e-learning solutions exist for both computers and internet, it only takes a good e-learning tool for education to be facilitated from virtually anywhere. Technology has advanced so much that the geographical gap is bridged with the use of tools that make you feel as if you are inside the classroom. E-learning offers the ability to share material in all kinds of formats such as videos, slideshows, word documents and PDFs. Conducting webinars (live online classes) and communicating with professors via chat and message forums is also an option available to users.

INTRODUCTION

Owing to the steady economic growth and globalisation, education in India is no longer just a teacher talking to a bunch of students in a classroom. With more than 370 million internet users and hundreds of local as well as global business tycoons willing to invest in the future of education, online education in India has picked up pace. In fact, the e-learning market in the country is estimated to be worth more than $3 billion. India is now the third largest online market for education in the world. This enables people to take better advantage of the resources available online. We have more than 1 million registered schools and 18,000 higher education institutions. However, 4 percent of children never start school, 58 percent don't complete primary schools, 90 percent don't complete secondary school and only 10 percent go on to college. What is going to happen to the 90 percent? This is where start-ups like Khan Academy enter the market with meticulously curate content, even in Indian languages, based on NCERT textbooks. In fact, online education helps people get access to a world-class learning experience when traditional higher education is simply not possible due to financial or personal constraints. Some may also suffer from physical or mental disabilities that make learning in a classroom impossible. For these students, online courses, specialisations and degree programs can offer an incredible opportunity to continue their education and build careers for themselves. These days, employers look for more than just the basic skill set in their employees, they look for a long-term relationship with the organisation. Often, appraisals and promotions are awarded on the basis of rescaling. This is where companies like Embibe and Simplilearnenter the picture with their courses for mid-level professionals. Similarly, UpGrad, which was launched in July 2015, also aims to create a flexible, industry-relevant learning experience for professionals. Alumni from respected business schools like IIT, Wharton, and UCLA also participated in this education revolution with their own venture called Slide Rule, through which they claim to help people discover the best online courses available in every subject.

BASIC DIFFERENCE BETWEEN DIGITAL EDUCATION AND THE CLASS ROOM EDUCATION

Gone are those days when classroom training was restricted to textbook learning, teachers using the blackboard to explain things and students writing down notes in copies. The traditional teacher-centered methods of teaching and task-based approaches to learning focused more on making notes and memorization. However, it's no more chalk and talk in most schools. Classroom teaching has become more and more interactive nowadays with the use of digital methods such as PPTs, video presentations, e-learning methods, practical demos, online training and other digital methods or platforms.

ADVANTAGES OF TEACHER-LED CLASSROOM TRAINING

- This is an efficient method of presenting a large volume of study material to students.
- It is a personal, face-to-face type of training.
- Everyone gets the same information at the same time.
- It is cost-effective.

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DISADVANTAGES OF TEACHER-LED CLASSROOM TRAINING

- Sometimes it is not interactive.
- Success of the lectures depends on the effectiveness of the teacher.
- More of memorising and mugging up for the students, instead of enhancing their metal skills and abilities.
- Time taking.

HOW DOES DIGITAL EDUCATION BENEFIT THE CHILD?

- **Interactive:** With digital education, classroom teachings have become more fun and interactive. Children tend to be more attentive. They are not only listening but also viewing it on the screen which makes their learning all the more effective. Here, sounds and visuals go hand-in-hand which is easy for the child to grasp.
- **Attention to details**:Interactive Online presentations or practical sessions in educational content through interactive screen time help the students to pay more attention to details which enable them to complete their activities on their own.
- **Quick completion:** Using tabs, laptops or notepads, instead of pens and pencils, motivates children to complete their tasks quickly.
- **Vocabulary:** Active online screen time helps students develop language skills. By reading eBooks or accessing study materials online, they learn new words and expand their vocabulary.
- **Learn at his pace:** Many a times, a student hesitates to ask a question to his teacher in classroom training. But with digital education, even if he does not understand anything at one go, he can attend the recorded sessions to clear his doubts. Technology enables a student to learn at his own pace.
- **User-friendly:** The best thing about digital education is that it is user-friendly. You can very well access your curriculum wherever you are. You can learn on the go. Even if you miss certain classes, you can access the class notes and download files from the school website.
- **Learn on his own:** Also, nowadays, online study materials are easily available. Even if the entire education system is not digitalized, yet students can leverage the power of digital content depending upon their capabilities. So students, can access exclusive online study modules of various subjects, which help them to enhance their knowledge even without a teacher.
- **External guidance:** With online education, students can even further connect with distant counselors and faculty to seek guidance or resolve queries.

DISADVANTAGES OF DIGITAL EDUCATION FOR CHILDREN

However, digital education also has its disadvantages:

- **Expensive:** First of all, it is expensive. That is why we see that most International schools and schools that have digital education are far more expensive than the regular schools.
- **Infrastructure:** To have digital education means, you need to have a proper infrastructure not only at schools but also at homes, particularly affordable broadband.
- **No fixed schedule:** Online learning requires much better management and rigid schedules, whereas in traditional classroom training, everything is as per a fixed schedule.
- **Reduces creative abilities:** Getting all answers on the net easily also reduces the children's own creative abilities.
- **Lazy approach to studies:** This may lead to poor study habits and can develop in children a lazy attitude. Digital education can also make children forget the basic way of studying. Even for simple problems and homework, they are used to seeking help from the net.
- **Security:** Last but not the least, going online does not mean that your child is only looking for study materials. There are many things which a child might come across that are not good for him. Digital education has its pros and cons. So, students need to be properly guided by their parents and teachers every time they are going to use the online technology.

EMERGING TRENDS OF DIGITAL EDUCATION

1. **Digitalized classroom/Flipped Class rooms a growing Trend:** A complete revolution in the way we learn today has been brought by Technology. Teachers teaching in the classroom can capture the students and the full strength in the class by digital screens, thus facilitating each child to get the same base content and input from the teachers. This feature of digital era has increased the Student engagement as it combines various instructional styles. Each student gets in contact to world-class education, which is not easy to impart by the traditional white chalk and black board teaching. This new learning is more interesting, personalized and enjoyable. With this technological inclusion in the school teaching the students feel studying as enjoyable, easy, competent and above all interesting. The aim of a teacher however should be to create such an atmosphere which makes every student want to study.
2. **Video based learning:** Video-based learning as a part of digital marketing has geared up in Indian Education Sector and has made education engaging, entertaining and exploring. It enables learning with a pedigree of learning out of leisure with creativity, fun and entertainment on cards via the wonderful Apps, podcasts, videos, interactive software, e books and online interactive electronic boards. Children are excited and operative with interest to manage the showcase via their intelligence, exploring the weak techno skills of teachers and assist them in public with pride and honor and recognition.

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3. **Massive open online course (MOOCS) &other distant learning programs**: A massive open online course (MOOC) is an online course aimed at unlimited participation and open access via the web. India is considered to be the biggest market for MOOCs in the world after the USA. Since the population of India is huge, massive open online course (MOOC) are said to gateways for a lot of Indians in terms of bringing an educational revolution. Online distant learning programs give a great opportunity to avail high quality learning with the help of internet connectivity.
4. **K12 sector Game based learning:** K-12 School is a terminology used as Kindergarten through XII grade. Various start-up companies have been the contributor for this sector. Today the world is of Y-generation people who are acquainted with the technological developments taking around them, and they are also surrounded with the required skills and abilities. K-12 creates the game based learning environment, which enables the learner to easily get the word of education in India and give us a better self-trained Y generation.

ADVANTAGES OF DIGITAL LEARNING

Digital Learning has become very popular with time. The following are the advantages of Digital Learning:

No Physical Boundaries:

Digital Learning has no locational and time restrictions. In case of face-to-face learning, the location limits the group of learners to those who have the ability to participate in the area. But this is not the case in digital learning. In digital leaning, there is no physical restriction and the learner can attend the sessions anytime, anywhere according to his/her comfort.

More Engagement: Digital learning is a more engaging experience as compared to traditional learning. Through digital learning, a course can be designed in a way that makes it interactive and fun through the use of multimedia. Even, the more recently developed methods of gasification can be used to enhance the engagement factor.

Cost Effective: Digital learning is cost effective way of education as compared to traditional learning. This is directed towards both learners and teachers. In digital learning, here is a good chance that you don't have to pay exorbitant amounts of money to acquire textbooks for school or college. As textbooks often become obsolete after a certain period of time, e-learning is definitely a cost effective way of learning because of the reduced cost.

Comfort Zone: Comfort zone can be established in digital learning as you can study at the time that suits you. In case of traditional learning where all the students have to present in the class when the teacher is teaching. The same is not the case which digital education. In digital education, the student can study at the time of his own comfort.

MAIN REASONS FOR THE GROWTH OF DIGITAL LEARNING:

- With nearly a billion people on mobile phones and over 200 millionmobiles connected to the internet, there has been a considerable rise in digital learning
- The use of best-in-class content, real-time learning and feedback methods, and personalized instructions has encouraged online learning
- People are stepping towards digital learning as the ed-tech firms are providing them the comfort of 'live and interactive' anywhere learning in digital format, through its online programs
- These online courses are affordable and easily accessible
- Digital learning aims to break the numerous barriers that are preventing people from receiving quality education in the physically bound classrooms.

CHALLENGES OF DIGITALLEARNING & MEASURE TO OVER COME THEM

Digital Learning has become very popular with period of time. But it imposes certain challenges which need to be overcome. Someone rightly said, "Digital learning should be more about the human touch that just machines". The following are the challenges of digital learning along with the measures to overcome these challenges:

Resistance to change

Every improvement has two sides of coin, with one leading to advancement and development and other relates to certain challenges associated with the implementation of this advancement. Unfamiliarity of employees towards technology is one of the biggest challenges of Digital Learning, which the managers need to work with it. People commonly resist change, even if the changes are superior to what they had previously. They might not trust that a technology-based learning program will be as effective as interacting with an instructor. It's a fact that eLearning implementation can create enormous change within a company, so implementers can expect to face some resistance.

To overcome this resistance certain measures can be taken

- Refresher benefit: Feature of multimedia learning enables to makes the material more engaging and
- Easier to assimilate. At the time of refresher, such learning material will be at their fingertips when they want. This will enable to complete the learning within a span of time.
- Effective communication processes: Communication is the key to incorporate an digital Learning
- Programme effectively. Communication will enable to understand and accept your digital Learning program quickly. It is important that, trainees need to know what benefits digital learning offers them, and what are the objectives, among other aspects.

Learners Motivation

Classroom which are run in the form of a seminar and discussion have the advantage of accountability and supervision.

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One of the common challenges in digital Learning is that, left to their own devices, employees may not explore the course material. Even worse, employees may resent using their own time to do coursework, rather than enjoying the "vacation" from their everyday responsibilities afforded by an in-person seminar. Therefore, it becomes rather important and a big challenge on how can we keep our students motivated enough to complete the course and moreover, how can we make them enjoy the learning experience?

To overcome this challenge certain measure can be taken

- Incentives: Accreditation of the courses and certification gives employees a tangible goal that benefits themselves as well as the employer. More broadly, any job training that can lead to career advancement or resume building is valuable to today's employee.
- Appealing: One of the best methods to motivate your participants or audience is to make sure the Digital Learning courses you develop are visual and very appealing to the eye. Take a look at this info graphic, where you can get ideas on how to make eLearning more attractive.

Technological Skills of Learners

The Digital Learning implementation will be dependent upon the computer literacy of the employees using it. The ability of the learner's to access and interact with the course material dictates the utility he will get out of the program. To overcome this resistance certain measures can be taken:

- **Adaptability:** This eLearning challenge can be mitigated by scaling the complexity of the system to the needs of the course and of the employees. When the content being taught is fairly basic, a simple interface can be used to impart it; the complexity can be scaled up as the course material and technological expertise of the learner demands.
- **Help when required**: When students run into problems while using the Digital Learning courses, technical support services should be there, like live chats, auto-help buttons, emails, discussion boards. Availability of digital learning facilitators available will also make them feel they are supported in the programme.

Evaluating effectiveness

Yet another important challenge of Digital Learning is the task of determining whether the course is having the intended effect. In the absence of pop quizzes and report cards, how can an employer tell whether the eLearning implementation is achieving its goals?

Solution: Assessing the result is important, it is essential to know how many employees are using the Digital Learning program, how long they spend on it, and how many complete the course, but above this it is more important to know the performance reflects their newly-acquired knowledge. If they display the skills and information gleaned from the digital Learning program in their work, then the Digital Learning implementation has been effective.

DRIVING NEW INNOVATIONS IN LEARNING ENVIRONMENTS

BENEFITS OF DIGITAL CONTENT USAGE IN THE CLASSROOM	PRINCIPALS WHO HAVE IMPLEMENTED BLENDED LEARNING IN THEIR SCHOOLS
Increases student engagement in learning	75%
Extends learning beyond the school day offering students opportunities for self-directed learning and remediation	72%
Increases the relevancy and quality of the instructional materials	63%
Provides an innovative way for instruction to be personalized for each student	56%
Decreases the traditional dependency on textbooks	51%

Key outcomes of Digital learning are

- E-Learning should be more focused on knowledge creation rather than merely on knowledge acquisition. As knowledge is the integral part of this century.
- Developing collective cultural practices, physical learning is important as learning takes place between people and their cultural surroundings.
- Along with emotional and cognitive development, ell-being and Social and Emotional Learning (SEL) are also essential for the development of the students.
- Instead of computer-supported learning, it would be advisable to talk about new forms of Socio-Digital Participation (SDP). This includes media literacy, such as using social media and search engines.
- Constant reforms in schools and teacher education is essential for development. The schools are not following the important developments of society. There is no evidence that learning styles or types would be informative in designing learning environments. Alternatively, it would be advisable to observe users' motivational profiles or study orientations. Meaningful and engaging learning methods are advisable, which support collaboration and self-regulation.

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RECOMMENDATIONS

Young generation have smart phones, computers, laptops that are changing the way of education. They actively participate in social communication through online communities since early childhood. But the problem lies in the fact that these activities take place after the formal learning is over and there is no synchronization between this informal learning which the formal learning. Research also states that informal learning is often more engaging and effective than formal learning. Furthermore, research indicates that the students with the best skills in technology are also the ones who are often non-participative in the formal learning. To solve this issue, Social and Emotional Learning (SEL) should be provided by teachers and parents. Social and Emotional Learning (SEL) includes the skills that are needed to regulate oneself and interact with others in constructive ways. Social and emotional skills are critical to being a good student, citizen, and worker. Many risky behaviours which include drug use, violence, bullying etc can be prevented or reduced when the method of social and emotional learning is used. Social and Emotional Learning (SEL) can be best adopted by effective classroom instruction, student engagement in positive activities in and out of the classroom, and broad parent and community involvement in education.

CONCLUSION

With so many different ways to define e-learning and the educational approaches that can be taken in these learning environments, it is the conclusion of this author that e-learning is an innovative approach to learning. It is a holistic way of teaching and learning that meets the needs of today's digital natives. It is an environment made up of collaboration, choice, and an array of technological resources that supports a successful online learning experience. However, in order for learners to be successful in this learning environment the challenges to e-learning must be overcome with support and best practice solutions. Instructors and learners must embrace the shift away from traditional classroom practices to an e-learning approach to education. Despite the fact that today's learners are digital natives, the use of technology for e-learning can be overwhelming and provide student motivation challenges however, with the proper supports from instructors, learners can be successful within these e-learning environments. Finally, and probably the most important challenge for the instructor is to focus on the overall elements of a well-developed course. Developing a purposeful and well-defined online course, this supports the instructor and learner, means devoting the appropriate time and embedding the applicable course elements into the e-learning environment.

REFERENCES

[1]. Author "Beyond Student And Technology: Seven Pieces to Complete The E-Learning Jigsaw Puzzle in Developing Countries," 30th Information Systems Research Seminar in Scandinavia, IRIS30, Tampere, Finland, 2007, p. 1330.
[2]. Bollag, B., and Overland, M.A. "Developing Countries Turn to Distance Education," Chronicle of Higher Education (47:40) 2001, pp A29-22.
[3]. Broadbent, B. "Anyone, anywhere, anytime," OH & S Canada (16:8) 2000, pp 50-52.
[4]. Bruckman, A. "The future of e-learning communities," Communications of the ACM (45:4) 2002, pp 60- 63.
[5]. Burn, J., and Thongprasert, N. "A culture-based model for strategic implementation of virtual education delivery," International Journal of Education and Development using Information and Communication Technology (1:1) 2005, pp 32-52.
[6]. Jiang, M., and Ting, E. "A Study of Factors Influencing Students' Perceived Learning in a Web- Based Course Environment," International Journal of Educational Telecommunications (6:4) 2000, pp 317-338.
[7]. Mason, R., and Weller, M. "Factors affecting students' satisfaction on a web course," Australian Journal of Educational Technology (16:2) 2000, pp 173-200.
[8]. Rajesh, M. "A Study of the problems associated with ICT adaptability in Developing Countries in the context of Distance Education," Turkish Online Journal of Distance Education (4:2) 2003.
[9]. Butler, D., et al. (2013). "A Consultative Paper Building towards Learning Society: A National Digital Strategy for Schools." Retrieved September 2015, from http://www.education.ie/en/Schools-Colleges/Information/Information-CommunicationsTechnology-ICT-in-Schools/Digital-Strategy- for-Schools/ Building-Towards-a-Learning-Society-ANational-Digital-Strategy-for-Schools- Consultative-Paper.pdf
[10]. Future Trends of Digital Education in India, Retrieved from http://www.educationinsider.net/detail_news.php?id=1326, Accessed on 1st May,2016

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