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IMPLEMENTATION OF VIRUAL LEARNING IN INDIAN EDUCATION SYSTEM – A SECOND LIFE EDUCATION

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Abstract

E-learning (or eLearning) is the use of electronic educational technology in learning and teaching. Conceptually, e-learning is broadly synonymous with instructional technology, information and communication technology(ICT) in education, EdTech, learning technology, multimedia learning, technology-enhanced learning (TEL), computer-based instruction (CBI), computer managed instruction, computer-based training (CBT), computer-assisted instruction or computer-aided instruction (CAI), internet-based training (IBT), flexible learning, web-based training (WBT), online education, virtual education, virtual learning environments (VLE) (which are also called learning platforms), m-learning, and digital education. In usage, all of these terms appear in articles and reviews; the term "e-learning" is used frequently, but is variously and imprecisely defined and applied. These alternative terms are all linguistically more restrictive than "educational technology" in that they refer to the use of modern tools, such as computers, digital technology, electronic media, networked digital devices and associated software and courseware with learning scenarios, worksheets and interactive exercises that facilitate learning. However, these alternative names individually emphasize a particular digitization approach, component or delivery method. Accordingly, each conflates to the broad domain of educational technology. For example, m-learning emphasizes mobility, but is otherwise indistinguishable in principle from educational technology. Virtual program (or a virtual course of studies) is a study program in which all courses, or at least a significant portion of the courses, are virtual courses, whether in synchronous (i.e. real time) or asynchronous (i.e. self-paced) formats. Virtual courses a synonym is online courses are courses delivered on the Internet. "Virtual" is used here to characterize the fact that the course is not taught in a classroom face-to-face but through some substitute mode that can be associated with classroom teaching. That means people do not have to go to the real class to learn. Both the asynchronous and synchronous methods rely heavily on self-motivation, self-discipline, and ability for effective written communication. Video-based courses are like face-to-face classroom courses, with a lecturer speaking and online examples used for illustration. Video-streaming technologies are used. Students watch the video by means of freeware or plug-ins. This present study is focuses on "Implementation of Virtual Learning (V-Learning) in Indian Educational System". The data is gathered through both Primary and Secondary sources.

Key words: *Electronic Educational Technology, Linguistically, Digitization Approaches, Educational Technology, Real Class to Learn, Asynchronous, Synchronous and Video-Streaming Technologies.*

Introduction

In the case of formal education, the main determining factor about the quality of education is the quality of the teaching material, curriculum and course contents. In a conventional system, the teaching material is designed and developed by the expert

resources available in a particular academic institution or University. In e-education scenario the contents of various courses can be prepared by a virtual bank of experts. The experts from all over the world can participate through Internet meetings and discussions. The contents created can be stored on servers and be made available to any University anywhere in the world. The second prerequisite of good education system is the expert teachers. In countries like India, there is tremendous shortage of teachers particularly in remote areas. The students are deprived of good education for want of both material and teachers. The Integrated Internet Education System of e-education delivers the courses to the students directly at their door step using various tools like multimedia and virtual reality. The local teachers have to act only as facilitator. The expert resources of the virtual bank of experts are also available to the students through Internet, E- mail, chat sessions, video-conferences and video phones. In a very simple system one can use MSN messenger's service or Yahoo messenger service and can get into a conference with the expert teacher and instantaneously exchange typed messages. The student can ask questions, clarifications and the teachers can send replies from their respective PCs at their homes. Memory Technology the growth of Internet has accelerated the growth of many technologies. One of them is the memory of technology. Compact Disk Read only memory (CD-ROM) and Digital Versatile Disk (DVD) are two popular media used in the e-education system. Enormous amount of data 640 MB on CD-ROM on a DVD can be stored and this compact disk can be physically transported to any school. The multimedia contents of these CDs can then be presented to the students thereby giving them the benefit of best education. Another advantage of the virtual school is that it caters to the requirements of the not so well gifted" or the under achievers. The basic concept is that all pupils in the same age group are capable of reaching the same academic achievements, if provided appropriate education.

E-education systems are being implemented in schools all over the world. As early as in 1996. The then President of U.S.A. Bill Clinton wanted every class room in America to be connected to the information super highway thus creating world class room. In England 10,000 schools have been linked to internet on the "National Grid for Learning". In India the government has announced "Operation Knowledge" "Bidyarti Computer Scheme" "Shikshak Computer Scheme" and School Computer Scheme. They are the schemes for penetration of computers in schools. Internet connectivity in all schools will convert them into smart school which has been conceptualized as places where the emphasis is not only on 77 but also use of skills and values that will be important in the new millennium. E-education at higher institutions has become an entirely different phenomenon. Unfathomable oceans of knowledge are being generated and are becoming accessible through innumerable servers of the Internet. The Internet systems permit students to acquire qualifications without moving out from his house. There are universities adopting distance education system. Students can apply for a course through e-mail, receive instructions material on Internet

receive consultation, receive question paper, send the answer sheets and finally get a degree certificate through e-mail. It will be only necessary to take a print out if hard copy is necessary for compilation of the process. Digital libraries have appeared on the scene, which are very useful in the areas of research. Unlike the conventional libraries digital library provides multiple accesses to the same material at the same time. Researchers have instances access to any reference material from any of these libraries all over the world. The information about patents and intellectual property rights in digital form has helped the knowledge development process.

Knowledge People Information technology has created a new class of professionals. There are knowledge workers and knowledge managers in the society today then there are the knowledge users. To derive benefit of the technology in his day-to-day life, every person should be able to operate the spacing computer and the Internet. In addition to this the knowledge workers and knowledge managers are to be prepared by the education system. One more class of students created by e-education system is the technicians and technologists, who can develop the technology, realise it and then operate the systems for the user. The Internet technology has thus made the best teaching material and best education technology available to all students irrespective of their geographical location and political affiliations.

Objectives

The present study has been conducted with the following objectives:

1. To study Indian education system. The need for a change.
2. To study about virtual learning environment
3. To study how the V-Learning is enlightening the Indian students?
4. To give an overview of challenges and solutions of virtual learning in India

Operational Definitions

"Education via the Internet, Network or Standalone computer. E-learning is essentially the network-enabled transfer of skills and knowledge. E-learning refers to using electronic applications and process to learn. E-learning applications and processes include Web-based learning, Computer-based learning, Virtual classrooms and Digital collaboration. Content is delivered via the Internet, Intranet/Extranet, Audio or Video tape, Satellite TV and CD-ROM".

Quite simply, e-learning "is electronic learning, and typically this means using a computer to deliver part, or all of a course whether it's in a school, part of your mandatory business training or a full distance learning course".

"Distance learning, sometimes called e-learning, is a formalized teaching and learning system specifically designed to be carried out remotely by using electronic communication. Because distance learning is less expensive to support and is not

constrained by geographic considerations, it offers opportunities in situations where traditional education has difficulty operating. Students with scheduling or distance problems can benefit, as can employees, because distance education can be more flexible in terms of time and can be delivered virtually anywhere".

Indian Education System – Need for a Change

Education has been a problem in our country and lack of it has been blamed for all sorts of evil for hundreds of years. Even Rabindranath Tagore wrote lengthy articles about how Indian education system needs to change. Funny thing is that from the colonial times, few things have changed. We have established IITs, IIMs, law schools and other institutions of excellence; students now routinely score 90% marks so that even students with 90+ percentages find it difficult to get into the colleges of their choice; but we do more of the same old stuff. Rote learning still plagues our system, students study only to score marks in exams, and sometimes to crack exams like IIT JEE, AIIMS or CLAT. The colonial masters introduced education systems in India to create clerks and civil servants, and we have not deviated much from that pattern till today. If once the youngsters prepared en masse for civil services and bank officers exams, they now prepare to become engineers. If there are a few centres of educational excellence, for each of those there are thousands of mediocre and terrible schools, colleges and now even universities that do not meet even minimum standards. If things have changed a little bit somewhere, elsewhere things have sunk into further inertia, corruption and lack of ambition. Creating a few more schools or allowing hundreds of colleges and private universities to mushroom is not going to solve the crisis of education in India. And a crisis it is we are in a country where people are spending their parent's life savings and borrowed money on education and even then not getting standard education, and struggling to find employment of their choice. In this country, millions of students are victim of an unrealistic, pointless, mindless rat race. The mind numbing competition and rote learning do not only crush the creativity and originality of millions of Indian students every year it also drives brilliant students to commit suicide. We also live in a country where the people see education as the means of climbing the social and economic ladder. If the education system is failing then it is certainly not due to lack of demand for good education, or because a market for education does not exist. Education system in India is failing because of more intrinsic reasons. There are systemic faults that do not let our demand for good education translate into a great marketplace with excellent education services. Let's explore something else in this one: what should change in India education system? What needs to be fixed at the earliest? Here is my wish list:

Focus on skill based education

Our education system is geared towards teaching and testing knowledge at every level as opposed to teaching skills. "Give a man a fish and you feed him one day, teach him how to catch fishes and you feed him for a lifetime." I believe that if you teach a man a

skill, you enable him for a lifetime. Knowledge is largely forgotten after the semester exam is over. Still, year after year Indian students focus on cramming information. The best crammers are rewarded by the system. This is one of the fundamental flaws of our education system.

Reward creativity, original thinking, research and innovation

Our education system rarely rewards what deserves highest academic accolades. Deviance is discouraged. Risk taking is mocked. Our testing and marking systems need to be built to recognize original contributions, in form of creativity, problem solving, valuable original research and innovation. If we could do this successfully Indian education system would have changed overnight. Memorising is no learning; the biggest flaw in our education system is perhaps that it incentivizes memorizing above originality.

Get smarter people to teach

For way too long teaching became the sanctuary of the incompetent. Teaching jobs are until today widely regarded as safe, well-paying, risk-free and low-pressure jobs. Once a teacher told me in high school "Well, if you guys don't study it is entirely your loss – I will get my salary at the end of the month anyway." He could not put across the lack of incentive for being good at teaching any better. Thousands of terrible teachers all over India are wasting valuable time of young children every day all over India.

Education for all

It is high time to encourage a breed of superstar teachers. The internet has created this possibility – the performance of a teacher now need not be restricted to a small classroom. Now the performance of a teacher can be opened up for the world to see. The better teacher will be more popular, and acquire more students. That's the way of the future. We need leaders, entrepreneurs in teaching positions, not salaried people trying to hold on to their mantle.

Implement massive technology infrastructure for education

India needs to embrace internet and technology if it has to teach all of its huge population, the majority of which is located in remote villages. Now that we have computers and internet, it makes sense to invest in technological infrastructure that will make access to knowledge easier than ever. Instead of focusing on outdated models of brick and mortar colleges and universities, we need to create educational delivery mechanisms that can actually take the wealth of human knowledge to the masses. The tools for this dissemination will be cheap smartphones, tablets and computers with high speed internet connection. While all these are becoming more possible than ever before, there is lot of innovation yet to take place in this space.

Re-define the purpose of the education system

Our education system is still a colonial education system geared towards generating babus and pen-pushers under the newly acquired skin of modernity. We may have the most number of engineering graduates in the world, but that certainly has not translated into

much technological innovation here. Rather, we are busy running the call centres of the rest of the world – that is where our engineering skills end. The goal of our new education system should be to create entrepreneurs, innovators, artists, scientists, thinkers and writers who can establish the foundation of a knowledge based economy rather than the low-quality service provider nation that we are turning into.

Effective deregulation

Until today, an institute of higher education in India must be operating on a not-for profit basis. This is discouraging for entrepreneurs and innovators who could have worked in these spaces. On the other hand, many people are using education institutions to hide their black money, and often earning a hefty income from education business through clever structuring and therefore bypassing the rule with respect to not earning profit from recognized educational institutions. As a matter of fact, private equity companies have been investing in some education service provider companies which in turn provide services to not-for-profit educational institutions and earn enviable profits. Sometimes these institutes are so costly that they are outside the rich of most Indian students. There is an urgent need for effective de-regulation of Indian education sector so that there is infusion of sufficient capital and those who provide or create extraordinary educational products or services are adequately rewarded.

Take mediocrity out of the system

Our education system today encourages mediocrity – in students, in teachers, throughout the system. It is easy to survive as a mediocre student, or a mediocre teacher in an educational institution. No one shuts down a mediocre college or mediocre school. Hard work is always tough, the path to excellence is fraught with difficulties. Mediocrity is comfortable. Our education system will remain sub-par or mediocre until we make it clear that it is not ok to be mediocre. If we want excellence, mediocrity cannot be tolerated. Mediocrity has to be discarded as an option. Life of those who are mediocre must be made difficult so that excellence

Personalize education – one size does not fit all

Assembly line education prepares assembly line workers. However, the drift of economic world is away from assembly line production. Indian education system is built on the presumption that if something is good for one kid, it is good for all kids. Some kids learn faster, some are comparatively slow. Some people are visual learners, others are auditory learners, and still some others learn faster from experience. If one massive monolithic education system has to provide education to everyone, then there is no option but to assume that one size fits all. If however, we can effectively decentralize education, and if the government did not obsessively control what would be the "syllabus" and what will be the method of instruction, there could be an explosion of new and innovative courses geared towards serving various niches of learners, Take for example, the market for learning dancing. There are very different dance forms that attract students with different

tastes. More importantly, different teachers and institutes have developed different ways of teaching dancing. This could never happen if there was a central board of dancing education which enforced strict standards of what will be taught and how such things are to be taught. Central regulation kills choice, and stifles innovation too. As far as education is concerned, availability of choices, de-regulation, profitability, entrepreneurship and emergence of niche courses are all inter-connected.

Virtual Learning Environment

A virtual learning environment (VLE), or learning platform, is an electronic educational technology (also called e-learning) education system based on the Web that models conventional in-person education by providing equivalent virtual access to classes, class content, tests, homework, grades, assessments, and other external resources such as academic or museum website links. It is also a social space where students and teacher can interact through threaded discussions or chat. It typically uses Web 2.0 tools for 2-way interaction, and includes a content management system. VLEs are the basic components of contemporary distance learning, but can also be integrated with a physical learning environment which may be referred to as blended learning. Virtual learning can take place synchronously or asynchronously. In synchronous systems, participants meet in "real time" and teachers conduct live classes in virtual classrooms. Students can communicate through a microphone, chat rights, or by writing on the board. In asynchronous learning, which is sometimes called "self-paced" learning, students are expected to complete lessons and assignments independently through the system. Asynchronous courses have deadlines just as synchronous courses do, but each student is learning at his own pace. A VLE can include students and teachers "meeting" online through a synchronous web-based application. The teacher is able to present lessons through video, presentations, or chatting. The students are able to talk with other students and the teacher, as well as collaborate with each other, answer questions, or pose questions. They can use the tools available through the application to virtually raise their hand, send messages, or answer questions on the screen given by the teacher or student presenter.

Components of V-Learning

The following are the basic or the main components required for a virtual learning environment or online education curriculum to take place. A VLE may include some or all of the following elements:

- The course syllabus
- Administrative information about the course: prerequisites, credits, registration, payments, physical sessions, and contact information for the instructor
- A notice board for current information about the ongoing course

- The basic content of some or the entire course the complete course for distance learning applications, or some part of it, when used as a portion of a conventional course. This normally includes material such as copies of lecture in the form of text, audio, or video presentations, and the supporting visual presentations
- Additional resources, either integrated or as links to outside resources. This typically consists of supplementary reading or innovative equivalents for it.
- Self-assessment quizzes or analogous devices, normally scored automatically
- Formal assessment functions, such as examinations, essay submission, or presentation of projects. this now frequently includes components to support peer assessment
- Support for communications, including e-mail, threaded discussions, chat rooms, Twitter and other media, sometimes with the instructor or an assistant acting as moderator. Additional elements include wikis, blogs, RSS and 3D virtual learning spaces.
- Management of access rights for instructors, their assistants, course support staff, and students
- Documentation and statistics as required for institutional administration and quality control
- Authoring tools for creating the necessary documents by the instructor, and, usually, submissions by the students
- Provision for the necessary hyperlinks to create a unified presentation to the students

A VLE is normally not designed for a specific course or subject, but is capable of supporting multiple courses over the full range of the academic program, giving a consistent interface within the institution and to some degree with other institutions using the system. The virtual learning environment supports an exchange of information between a user and the learning institute he or she is currently enrolled in through digital mediums like e-mail, chat rooms, web 2.0 sites or a forum thereby helping convey information to any part of the world with just a single click.

V – Learning/ E – Learning for Enlightenment of Indian Students

No more are we surprised to find kids, hardly out of their toddler years, effortlessly using the computer and a string of other electronic gadgets. These new age kids literally define the very times that we live in. Sophistication has become a part of their lives and most of their daily activities. They are at home operating these high tech gadgets that we, even as grownups, find quite difficult to get familiar with in quick time. Amidst this, why not let even their mode of educational training become as advanced as their toys and the next generation gizmos that surround them. This is where e-class comes forth as an option for parents and teachers who desire their kids to learn everything there is to be learnt,

grasp all knowledge even as they grow in strength and intelligence with each passing day. The concept of e-learning in India is yet in its early stages and may not exactly be spreading like wild fire in many parts of rural India. However, as a mode of teaching and learning, it has seen an increasing use in educational institutions in cities. Here computers and audio visuals are extensively being used to get the children better versed with the lessons taught in the classroom or for that matter even while learning at home. More and more schools are realizing the importance of e-learning for school kids. They know how this will greatly assist teachers in their tireless endeavors of preparing gifted beings and thus doing justice to the great intelligence of the little ones. Since a teacher may find it real difficult to individually make sure that every child is clear with the lessons taught in the class, there is also a tendency of many students being confused. There are also times when a child, who has many doubts, will yet not approach the teacher out of embarrassment or shyness. This is where e-class comes into play. It becomes an assistant of the teacher, as in it is makes sure each student is cleared of all his doubts easily. It acts as a student's best friend and is at his disposal 24/7 throughout the year.

It is the virtual platform of e-class that makes this impossibility possible. This is where e-learning in India simply goes to another level, even as a next generation platform of studying is made ready for the little ones. The beauty of e-learning for school kids is that it comes loaded in a pen drive along with an e-box which is a small multi-media player and thus readily plays on a TV set. It may as well be loaded into a personal computer, a server or for that matter even a laptop. All the subjects are covered by e-class and it is available readily for the students of standard 1 to standard 10 of Maharashtra State Board. E-learning for school kids is a medium with the outstanding potential of spreading a wave of education and literacy throughout the length and breadth of India. At the heart of it, e-class is not just another product for selling purpose. It truly aspires to be instrumental in spreading a revolution, an "e" revolution. Here "e" stands for education and enlightenment. Not only the urban kids but even rural children can greatly benefit from this platform of e-learning in India. For once, a child with good education is a child empowered with knowledge and wisdom. This is a child with the power to do anything.

Challenges and Solutions of Virtual Learning in India

Regardless of the profession and the role an employee plays, it is imperative to keep the employees up-to-date on the organization's new products, policies and procedures to make them remain competitive. But, when you consider some of the factors such as the cost, schedule allotted and training the employees who are geographically spread out, you would realize how difficult it is to impart training. An eLearning program through which the employees can take up training at their own pace and in their free time could be a solution to these problems. But not to forget, eLearning comes with lots of challenges that have to be addressed while delivering the online training.

Challenge 1: Lack of awareness

One of the major challenges of eLearning is that the employees or the learners are unaware of effectiveness of eLearning. They might feel that eLearning is not as effective as classroom training and that the trainees would miss the opportunity of face-to-face interaction.

Solution

Promote eLearning: Promoting eLearning could be an effective way to initiate an eLearning program. Arrange for the marketing campaign and use it as a base for creating awareness among the audience. Other ways could be through publishing eBooks, blogs and even through hosting an event on eLearning. Develop the communication: Developing effective communication among the audience could be another approach towards creating awareness. Your audience would quickly accept eLearning once they get to know what eLearning is all about and how it could be beneficial to them.

Challenge 2: Motivating Learners

Motivating learners is one of the common challenges faced by the eLearning developers. When you deploy the course and leave the learners to their devices, chances are that the learners may not take up the eLearning course effectively as they would do in classroom training. Hence the challenge is – how can you motivate your learners and present a good learning experience to them?

Solution

Stimulate learner's curiosity: You need to motivate your learners in the beginning of the course itself, so as to keep them engaged throughout the course. For this, you may ask the learners some thought-provoking questions. Ask them to describe a situation or use some surprising statements that would help the learners take up the course with great zeal and enthusiasm. Set clear objectives: Explain the learners in brief what they will learn after taking the course and how the course would benefit them. For example, you might explain that after completion of the module, they will be able to identify and respond to various security threats that occur at the workplace. Create a scenario or tell a story: Scenarios and stories are considered to be powerful tools in motivating your learners because when the learners find something relevant to their profession and experience, they would surely want to know and take up the course.

Challenge 3 Course content

Now, when the learner is onboard with the eLearning course, it is time that the content of the course needs to be focused on. A well designed course depends upon the content of the course. Most of the time, the content received from the client is unstructured and difficult to comprehend. You may receive content which does not contain enough information to be covered under a certain topic.

Solution

Involve the SME: One way to overcome this challenge is to involve the Subject Matter Experts (SMEs) in the eLearning project. A Subject Matter Expert is proficient in various subjects and guides the instructional designers on the content received. They ensure that the content is accurate and has no gaps. This way, the SMEs would greatly help solve the problems faced regarding the content.

Challenge 4: Evaluating effectiveness

One of the common challenges in eLearning could be to evaluate whether your course has the intended impact on the learners. How do you determine that your course is attaining its goal of meeting the learning requirements of the employees or trainees?

Solution

This challenge could be mitigated by incorporating effective assessments in the form of quizzes and puzzles in your course. Publishing the course through an LMS helps keep track of learner's activities and progress. It also provides the scores and results of the assessments taken by the learners.

E-Learning to Shape Future of Education in India

Technology may be the magic cure India needs for the ills that plague its school education, executives from companies providing technology solutions for classrooms said in a discussion at the World Economic Forum's India Economic Summit, 2012. Education has a role to play in efforts of a country looking to transforming itself from a middle-income economy to a high-income one said the discussion's moderator, Gordon Brown, United Nations special envoy for global education and the former Prime Minister of the UK. There is "no other important issue other than education in this country or globally," he added. And in India, said the executives, at least some significant education challenges can be met through technology. Talking on integrating technology with classrooms, Peje P. M. Emilsson, chairman and chief executive Magnora, Sweden, which owns education institute, Kunskapsskolan said that "there needs to be proper interface between technology and teachers. Classrooms need disruption to innovate." Technology will also help address the issue of quality of instruction said another executive. Use of technology and e-learning will allow high quality teachers to expand their reach," said Naresh Gupta, managing director, Adobe Systems India. Indeed, the panel agreed that "the future of education is online". Educomp Solution's managing director Shantanu Prakash said his company's virtual studios allow trainers to disseminate their training to rural centres and reaches out to 100,000 students who are studying accounting this way. And with time, as the education system and curriculum changes, newer models may emerge, said Emilsson, pointing to Salman Khan's Khan Academy, a not for profit educational organization.

Advantages of Online or Computer-Based Learning

- Class work can be scheduled around work and family
- Reduces travel time and travel costs for off-campus students
- Students may have the option to select learning materials that meets their level of knowledge and interest
- Students can study anywhere they have access to a computer and Internet connection
- Self-paced learning modules allow students to work at their own pace
- Flexibility to join discussions in the bulletin board threaded discussion areas at any hour, or visit with classmates and instructors remotely in chat rooms
- Instructors and students both report eLearning fosters more interaction among students and instructors than in large lecture courses
- eLearning can accommodate different learning styles and facilitate learning through a variety of activities
- Develops knowledge of the Internet and computers skills that will help learners throughout their lives and careers
- Successfully completing online or computer-based courses builds self-knowledge and self-confidence and encourages students to take responsibility for their learning
- Learners can test out of or skim over materials already mastered and concentrate efforts in mastering areas containing new information and/or skills

Disadvantages of Online or Computer-Based Learning

- Learners with low motivation or bad study habits may fall behind
- Without the routine structures of a traditional class, students may get lost or confused about course activities and deadlines
- Students may feel isolated from the instructor and classmates
- Instructor may not always be available when students are studying or need help
- Slow Internet connections or older computers may make accessing course materials frustrating
- Managing computer files and online learning software can sometimes seem complex for students with beginner-level computer skills
- Hands-on or lab work is difficult to simulate in a virtual classroom

Conclusion

India has many obstacles to overcome before it can offer its entire population access to an advance technology like e-learning. Large segments of the population live in poverty and many do not know how to read or write. Also the lack of infrastructure around the country only allows the median to be accessed by upper class who can afford it. But

this is no reason for the country to give up on e-learning. Although with all the obstacles, the future looks bright for e-learning in India. Both the private sector and public sector are working hard to develop content requirements for the education market including K-12, higher education, universities, professional education, technical training and lifetime learning. Also the e-learning market in India is estimated to grow a rate of 17-18% annually. In India, over the past decade, technology has been seen as an agent of power and control. The government has recognized that embracing technology can make India really powerful by allowing it to urbanize faster to match the clout that western nations already have. In the knowledge economy the main competitive advantage of nations is not their physical assets but the quality and skill of their people. E-learning, if used effectively, can provide education to a large population that would otherwise not have access to it. In India, education through technology is way to irradiate years of caste oppression, poverty and at same time increase literacy. Technology in the field of education can be a powerful tool. Today educational institutions are under pressure to do more with less i.e. improving student outcomes while facing reduced budgets. One solution may involve moving learning online. In the end, it will be Indian ingenuity, Indian solutions that will transform education for the majority of Indians, not imported material from other countries, as useful as that may be for a small minority.

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