TRANSFER OF KNOWLEDGE THROUGH E-LEARNING

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ABSTRACT

E-learning plays a very important role in the development of country. E-learning is an effective tool for development of educational sector in India. E-learning is learning, utilizing electronic technologies to access educational curriculum outside of a traditional classroom. E-learning has become an important part of the society, comprising an extensive array of digitalization approaches, components and delivery methods. A learning experience attempts to simulate the real-world classroom learning process. It involves assembling great content, distributing it to facilitate learning, managing the learning process and providing validations (E.g. tests, certifications).

Keywords:*Web Based, E-learning, Internet, ICT.*

INTRODUCTION

eLearning involves the use of digital media and technology to deliver learning experiences. A learning experience attempts to simulate the **real-world classroom** learning process. It involves assembling great content, distributing it to facilitate learning, managing the learning process and providing validations (E.g. tests, certifications). E-Learning typically reaches learners through one of the four channels: Traditional Education, Corporate, Government or Direct Consumer. In the past few years, direct consumer learning has emerged as one of the fastest growing channels. On the supply side, the industry has content providers (Authors, Institutions, etc.), service providers (Content creation, Publishing, Marketing, etc.) and technology providers (Authoring tools, Platforms, Learning Management Systems, etc.). Businesses in the E-Learning space often straddle more than one bucket to deliver a seamless experience [1].

I.   Why is E-learning so important?

E-learning is the catalyst that is changing the whole model of learning in this century for school pupils, university students, for employees, for the ongoing training and development of professionals like doctors, nurses and teachers - in fact for just about anyone who wants to find out something on either a formal or casual basis.

Let us now discuss some important key issues in connection to E- learning:

1.   **E-Learning** means that we no longer need to spend long periods travelling to a location to attend a course; you can now have access to learning when we want it, at the time we want it - day or night, wherever we want it - at home, at work, in local library. For many students this has opened up a new, much more flexible and accessible world of learning that was previously closed to them due to disability or family circumstances, or perhaps due to the fact that the course they wanted was on the other side of the world. In other words, there are now no longer any geographical constraints to learning; e learning brings learning to people, not people to learning.

2.   **E-Learning** makes learning exciting, engaging and compelling. Hard and boring subjects can be made easier, more interesting and appealing with e-learning.

3.   **E-Learning** empowers learners to manage their own learning and in the most appropriate way for each learner. We all learn in different ways -reading, watching, exploring, researching, interacting, doing, communicating, collaborating, discussing, and sharing knowledge and experiences.

4.   **E-Learning** means learners can have access to a wide range of learning resources: both materials and people, and in this way each learner can have an individualized, personalized experience, where they access the learning that is bestfor them.

5.   **E-Learning** has helped organizations with their bottom line.Many organizations have reported improved time to proficiency and faster time to market, and a education in learning times has meant savings on salaries and opportunity costs, and increased customer and staff satisfaction has led to higher customer and staff retention rates.For organizations, e-learning is playing a major part in helping keeping them agile and competitive in their market[4].

II. E-learning initiatives

Some of the prominent examples of e-learning initiatives in India

1. The government of Tamil Nadu established the Tamil Virtual University (TVU) on 17 February 2001 as a Society. The university provides internet-based educational resources and opportunities for the Tamil Diaspora as well as for others interested in learning the Tamil language and acquiring knowledge of the history, art, literature and culture of the Tamilians.

2. Indian Institute of Technology, Mumbai (http://www.iitb.ac.in) offers online video courses and off-line recorded video lessons for students to learn.Under the National Mission on Education through ICT, 1000 teachers are being trained at a time via online workshop.

3. NPTEL is an acronym for National Programme on Technology Enhanced Learning,which is an initiative by seven Indian Institutes of Technology (IIT Bombay,ÿÿelhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science for creating course contents in engineering and science subjects. It provides E-learning through online Web and Video courses for various streams.

4. DELNET - Developing Library Network (http://delnet.nic.in) was started at the India International Centre Library in January 1988 and was registered as a society in 1992. The National Information System initiall for Science and Technology (NISSAT), Department of Scientific and Industrial Research, Government of India supported it. Subsequently the National Informatics Centre, Department of Information Technology, Ministry of Communications and Information Technology, Government of India and the Ministry of Culture, Government of India supported it.

5. Indira Gandhi National Open University (http://www.ignou.ac.in) has integrated ICT into curriculum and instructional design and delivery. eGyanKosh has been developed for content sharing, and also provides online courses[3].

III. Challenges

The key challenges identified are accreditation and recognition issues, expensive mode of education and lack of awareness and acceptance. There is still institutional resistance to online learning. Whilst the Aakash tabletshave helped to stimulate the e -learning market it is important to remember the costs of Internet access and the lack of bandwidth in many rural areas. There is also a lack of attention paid to instructional design and learner support leading to high drop-out.

The schools of the 20th century were clustered around the idea that time would be constant and learning would be variable. Students were presented withsubject matter over a fixed period of 180 days and then their ability to master the content in that period of time was tested. It was accepted that some can master certain content quickly and others need more time. Simply replacing one fixed time model ofeducation with another is futile. It is now believed that time is not important: gaining mastery or excellence in a skill is. Schools of the past were essentially filtering institution, separating those who learnt quickly from those who did not.

Today with computers taking over, jobs that can be done with minimum education are fast diminishing. Skilled jobs and the need for lifelong education are on the increase. Schools of the future should therefore be institutions, which will provide whatever support is needed to achieve excellence. The idea of schools as a fixed time activity is being replaced by the concept of continuous learning built around a variety of tools and techniques. The 21st century classroom will be wherever the learner is located at school, on the bus ride home, in the park, at a museum, or in the playground.

Traditional tools (e.g., books, pens and paper) will co-exist with the high-tech tools of the telemetric era. The teacher's role in this distributed setting will be quite different from that of content presenter and test giver.The Internet eliminates geography as a limiting factor. A child in a remote hamlet can have the same access to the same reference materials as one located in the cosmopolitan city. Time is transcended by telemetric tools. Technology will have an increasingly positive impact on the student's creativity [2].

IV. Top eLearning Statistics and Facts

Countless reports, surveys, and studies have shown that eLearning industry isn't showing any signs of slowing down. An increasing number of individuals, corporations, and institutions are turning to eLearning as they recognize its effectiveness and its convenience. Here are some important eLearning statistics and facts, some of which may even surprise you.

1. **The Global eLearning Industry Market:**
   The global eLearning Market is expected to reach $150 billion by 2017. The global self-paced eLearning market reached $32.1 billion in revenue in 2010, with a five-year compound annual growth rate of approximately 9.2%.

2. **Top 10 Growth Rates By Country:**
   Growth rate shows how each country adopts eLearning and is a significant indicator since it can reveal revenue opportunities. The growth rate of self-paced eLearning by country is:

   1. India: 55%
   2. China: 52%
   3. Malaysia: 41%
   4. Romania: 38%
   5. Poland: 28%
   6. Czech Republic: 27%
   7. Brazil: 26%
   8. Indonesia: 25%
   9. Colombia: 20%
   10. Ukraine: 20%

3. **Learning Management System Market(LMS):**
   The LMS market was worth $2.55 billion in 2013 with an estimated compound annual growth rate of approximately 25.2%. In other words, the LMS market is expected to worth approximately $4 billion in 2015 and over $7 billion in 2018. The highest proportion of revenue contribution is expected to be generated in North America.

4. **Mobile Learning Market:**
   The worldwide market for Mobile Learning products and services reached $5.3 billion in 2012. With a compound annual growth rate of 18.2% for the next five years, it is estimated that the worldwide mobile learning market in 2015 and has reached $8.7 billion in 2016 and it will even reach $12.2 billion by end of 2017. It is worth to note that while in 2012 the top buyers of mobile learning products and services where US, Japan, South Korea, China, and India, it is expected that by 2018 the top buyers of mobile learning products and services will be China, US, Indonesia, India, and Brazil.

5. **Online Corporation Training:**
   The online corporate market is expected to grow by 13% per year up to 2017. Today, 77% of USA companies offer online corporate training to improve the professional development of their employees.

6. **eLearning Top Buyers:**
   Large companies are the main purchasers of eLearning products and services. As a matter of fact, these companies make up roughly 30% of all eLearning buyers.

7. **Learning Technologies:** The learning technologies used for 2014 were as follows :
   o 74% of companies currently use Learning management systems (LMS) and Virtual classroom/ webcasting/ video broadcasting
   o 48% of companies currently use Rapid eLearning Tool (ppt conversion tool)
   o 33% of companies currently use Application simulation tool
   o 25% of companies currently use Learning Content Management System
   o 21% of companies currently use Online performance support or knowledge management system
   o 18% of companies currently use Mobile Applications
   o 11% of companies currently use Podcasting.

V. **Demand of eLearning Software and Services in 2015:** The following statistics present what the small, mid-sized and large companies intend to purchase in 2015, based on the 2014 Training Industry Report.
a. 44% of companies intent to purchase online learning tools and systems
b. 41% of companies intent to purchase Learning Management Systems (LMSs)
c. 37% of companies intent to purchase authoring tools/systems
d. 33% of companies intent to purchase classroom tools and systems

e.   29% of companies intent to purchase content development products and services

f.   27% of companies intent to purchase courseware design and presentation tools and software

g.   18% of company's intent to purchase audio and web conferencing products and systems [9].

VI. E-LEARNING MARKET 2017 -2023

The size of the eLearning market was estimated to be over USD 165 Billion in 2015 and is likely to grow by 5% between 2016 and 2023, exceeding USD 240 Billion. Factors such as the possibility of allocating a lower budget for eLearning purposes (compared to traditional education methods,) together with increasing flexibility in learning are expected to drive industry growth.

The adoption of eLearning tools by more and more both academic and non-academic sectors (especially corporate,) together with all the abovementioned factors, is expected to positively impact market size, fuel the demand for eLearning services, and drive industry growth over the coming years.

User experience across eLearning tools continues to undergo constant improvement, as the service suppliers provide these educational tools through newest available technologies and users are able to benefit from a visually engaging interface and a media-driven learning experience. Further, these services are expected to boost employee productivity, a large part of the reason many firms opt for eLearning solutions over traditional learning methods. Clearly, this factor is also anticipated to positively impact the eLearning market demand over the next five years. The eLearning sector will most likely benefit from the rising interest in distance learning, as well as the expanded use of these services on smartphones, tablets, other mobile devices, and wearable technology. These factors open several possible growing paths for industries engaged in eLearning products and services

At the same time, technology obsolescence and management turnover could become the Achilles heel of a very dynamic and constantly evolving market segment. Vendor-developer partnerships and the need for the need for highly developed IT infrastructure could pose a number of industry challenges over the 2016 to 2023 time range.

Presently, the U.S. represents the leader in the adoption of eLearning technologies and services.

This fact supports the belief that North America will likely exhibit significant growth in this sector between 2016 and 2023[10].

VII. Concerns that arise with e-learning

Even given all the benefits of e-learning, one cannot deny there are some drawbacks. A good example of a disadvantage of online learning is that practical skills are somewhat harder to pick up from online resources. For example, although building a wooden table is something you can easily share information about, record videos of and explain, the practical experience is essential. Pottery and car engineering are examples of skills that require hands-on experience.

Isolation: Though e-learning offers ease, flexibility and the ability to remotely access a classroom in the student's own time; learners may feel a sense of isolation. This is because learning online is a solo act for the most part, which may give the learner the feeling that they are acting completely alone. As technology progresses and e-learning benefits from the advancements being made, learners can now engage more actively with professors or other students using tools such as video conferencing, social media, and discussion forums amongst others.

Health Related Concerns:E-learning requires the use of a computer and other such devices; this means that eyestrain, bad posture and other physical problems may affect the learner. When running an online course it's a good practice to send out guidelines about correct sitting posture, desk height, and recommendations for regular breaks [5].

CONCLUSION

E-learning in India is fast emerging. The use of enormous integrated set of computer and internet tools and resources allows us to achieve more efficient and effective training. The students are no longer passive consumers of the educational programs and services, but active participants in the educational process. The use of e-facilities involves various methods which includes systematized feedback system, computer-based operation network, video conferencing and audio conferencing, internet worldwide websites and computer assisted instruction. This makes easy where and when employees can engage in learning process.Off late many public and private sectors realizing the importance of E-Learning.UGC (University Grants Commission) of India had established a dialogue on "Enhancing Higher Education through E-Learning " with the commonwealth of Learning in 2003.

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