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The role of E-learning in empowering the digital generation

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Abstract
The new millennium heralds exciting opportunities to diversify the ways in which education is offered. Everything went electronic; today the words like e-health, e-government, e-shopping, e-business and e-learning are frequently encountered. A greater flexibility is provided through online access to learning – when, where and how to do it. Breaking the shackles of tradition empowers all learners, as their diverse needs are increasingly accommodated in education programs that are supported by information technology. E-learning is one important avenue for promoting greater access to all learners. The rapid development of technology makes it possible for almost anyone to access computing resources. These types of technologies include special hardware and software that allow individuals with a wide range of skills to make productive use of computers. The generation of humans whose generational location places their birth and developmental experiences during a time of widespread access to digital computing technologies and whose exposure to and experience with those technologies led to a technological comfort and expertise with that technology that surpasses those of prior generations. In this paper authors discussed E-learning, Initiated by Government of India, and E-learning Advantages for digital generation.

Keywords: E-learning, Digital Generation and E-learning Initiatives

Introduction
E-learning means teaching and learning in an electronic format. Most often, it is a computer and network enabled transfer of skills and knowledge, and can provide out-of-classroom and in-classroom educational experiences to the learners, even as advancement continues in regard to technology and curriculum.

E-learning is also attributed to other types of learning techniques like online learning, virtual learning, distributed learning, network and web-based learning. These learning techniques utilizes ICT and is applicable to both asynchronous as well as synchronous learning and techniques. As the world e-learning itself suggest, whereby 'e' stands for the word 'electronic', it incorporates all those educational activities performed by teachers or learners by using networked computers and other electronic devices whether working online or offline, and synchronously or asynchronously.

E-learning can be auto-instructional or instructor-led learning techniques; the lessons are in the form of text, image, graphic, animation, video and audio, or streaming video. E-learning provides very rich learning experiences and is beyond comparison with conventional setting of education and is very effective medium in the teaching-learning process. For school children, e-learning technique provides huge interactive experience, develop their various skills, add knowledge, change the perception of the world, etc. But the role of the teacher and parents is equally important while using e-learning Conventional methods of education system cannot be changed, but this millennium has introduced newer technological advancement and reduced the distance of transfer of knowledge through the internet, it is therefore expected that every learner even teacher must be equipped with basic knowledge of Information Technology, and utilize the knowledge to achieve the specific goal.

E-learning may suffer in equality and this is primary because of the teachers or organizations responsible to prepare the e-learning lessons; the content and its delivery are effected. Examples of inferior quality e-learning maters are boring slides, monotonous speech, and little opportunity for interaction. The effectiveness of e-learning also depends upon new softwares which allows the creation of very effective learning environments, and learners as well as teacher may find it unique and interesting (Imran R.Shaikh, 2013).

E-Learning Initiative by Government of India
National Mission on Education through ICT
The National Mission on Education through ICT has been envisaged as a centrally sponsored scheme to leverage the potential of ICT. It provides high quality, personalized and interactive knowledge modules over the internet / intranet, for all the learners in higher education institutions of India in any time and in anywhere mode.

The purpose of NMEICT is twofold – content generation and connectivity along with provision for access devices for institutions and learners. It seeks to bridge the digital divide, i.e the gap in the skills to use computing devices for the purpose of teaching and learning among urban and rural teachers in higher education domain and empower those, who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

It plans to focus on appropriate pedagogy for e-learning facility for performing experiments through virtual laboratories, on-line testing and certification, online availability of teacher's gudie and mentor learners, utilisation of available Education Satellite (Edusat) and Direct To Home (DTH) platform, training and empowerment of teachers to effectively use the new methods of teaching.

Sakshat is an effort of Nmeict towards creating an open house for knowledge. The approach is to scrupulously avoid reinventing the wheel. It is an attempt to harness a large number of knowledge resources in a manner that adds value to them by making them more personalized and useful to the lifelong learner or student. The effort involves content packageing and integration to suit specific needs of the students at various levels or with different kinds of talent and mental prowess.

The portal boldly seeks to address many of the shortcomings in our education system by bringing together the best experts in the country in their respective fields and best available knowledge resources on the web in the public domain. It seeks to standardize the curriculum and learning materials across the country and keeps them in tune with the latest trends world over so that Indian learners do not lag behind.

Teacher independent modules work wonder in remote areas where the learner does not have access to good quality teachers or wants to study independently. This system also enable a lot of community learning and formation of groups of learners of a given caliber from diverse fields to enable fusion of best practices of one field of knowledge with those of the other. It also galvanises rural communities who may share their problem with each other and find solutions form the locally available knowledge and talent.

In case, solution to problems being faced by a community are not forthcoming within a geographic locale, the horizon is expanded as the SAKSHAT enables to expand the boundaries to include even the entire world. Many educational services like scholarships, testing and certification, student/scholar/teacher/institution rating, guiding, demand and supply of talent through opportunity, surveys and forecasting etc, are delivered through SAKSHAT portal.

National Programme on Technology Enhanced Learning

The National Programme on Technology Enhanced Learning (NPTEL) is a Government of India sponsored collaborative educational programme. By developing curriculum-based video and web courses the programme aims to enhance the quality of engineering education in India. It is being jointly carried out by 7 IITs (IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Kharagpur, IIT Madras and IIT Roorkee) and IISc Bangalore, and is funded by the Ministry of Human Resource Development of Government of India.

NPTEL has completed 12 years since inception and we have 850 web and video courses across 23 disciplines. The course videos are available in streaming mode, and may also be downloaded for viewing offline. The video files are also viewable via the IIT Channel in YouTube. Seven IITs and the Indian Institute of Science (IISc) have worked together to develop web and video based material for basic undergraduate science and engineering courses in order to enhance the reach and quality of technical education in India.

The idea of having a technology enhanced learning initiative involving IITs and Indian Institutes of Management (IIMs) was first proposed by IISc Bangalore in the year 1999, immediately following a Workshop on Technology Enhanced Learning (WoTEL) conducted in Bangalore in Collaboration with Carnegie Mellon University (CMU), Pittsburgh, USA.

National Knowledge Network (NKN)

National Knowledge Network project is aimed at establishing a strong and robust internal Indian which will be capable of providing secure and reliable connectivity. Using, NKN, all vibrant institution with vision and passion will be able to transcend space and time limitations in accessing information and knowledge and derive the associated benefits for themselves and for the society. Establishing NKN is a significant step towards ushering in a knowledge revolution in the country with connectivity to 1500+institutions. NKN is intended to connect all the knowledge and research institution in the country using high bandwidth / low latency network.

Information and Library Network (INFLIBNET)

Centre is an autonomous Inter-University Centre of the University Grants Commission (UGC) of India. It is a major National Programme initiated by the UGC in 1991 with its Head Quarters at Gujarat University Campus, Ahmedabad. Initially started as a project under the IUCAA, it become an independent Inter-University Centre in 1996.

Inflibnet is involved in modernizing University-libraries in India and connecting them as well as information centres in the country through a nation-wide, high-speed data network using the state-of-art technologies for the optimum utilisation of information. INFLIBNET is set out to be a major player in promoting scholarly communication among academician and researcher in India.

Projects

The Ministry of Human Resource Development has created a platform / portal named 'SAKSHAT' as part of the National Mission in Education through Information and Communication Technology. E-Content Projects sanctioned by NME-ICT, MHRD including some other e-Learning platform are as follows:

eGyanKosh (http://egyankosh.ac.in/)

The meaning driven from e-GyanKosh is E=Electronic, Gyan=Knowledge and Kosh. eGyankosh is a national digital repository to store, index, preserve, distribute & share digital learning resources developed by the Open and Distance Learning Institutions in the country. It is implemented and maintained by Indira Gandhi National Open University (IGNOU). All course materials of IGNOU can now be accessed & downloaded free of cost. The collection comprises print & video based contents. Access of all materials are open to all through the one time registration process.

Flexi Learn (http://www.ignouflexilearn.ac.in)

IGNOU has introduced an open course portal called Flexi Learn which provides a self-learning environment with a list of academic advisors / course guides to act as mentors. Flexi Learn provides free and easy access to IGNOU's courses without any charges

Consortium for Educational Communication (CEC) (www.cec-ugc.org/)

Consortium for Educational Communication (CEC) was set-up as a nodal agency at the national level to address the educational needs of the country through the use of electronic media. CEC has about more than 15000 educational video programmes in 50 subjects developed by different Educational

Multimedia Research Centers spread in Universities and Institutions of Higher Education across India. 22 Media Centers are working towards achieving this goal under the umbrella of CEC. NME-ICT, MHRD awarded the project named Development of Courseware e-Content for Undergraduate. E-Learning Type Audio/Visual and Web Based material. CEC project basically concentrates on creation and dissemination of multimedia based learning resources.

Virtual Learning Environment, Institute of Lifelong Learning (ILLL) (www.vle.du.ac.in)

The Virtual Learning Environment, Institute of Lifelong Learning (ILLL) is a unique and innovative initiative of the University of Delhi to provide Open Educational Resources (OER) to the teaching and learning community. VLE provides the courses in Commerce, Humanities and Social Sciences, History, Sciences, Interviews and Podcast.

e PG Pathshala

The MHRD, under its National Mission on Education through ICT (NME-ICT), has assigned work to the UGC for development of e-content in 77 subjects at postgraduate level. The content and its quality is the key component of education system. High quality, curriculum-based, interactive content in different subjects across all disciplines of social sciences, arts, fine arts & humanities, natural & mathematical sciences, linguistics and languages is being developed under this initiative named e-PG Pathshala. E-content so developed would be available in open access through a Learning Management System (LMS) set-up at the INFLIBNET Centre as well as through Sakshat portal. Source: (http://www.inflibnet.ac.in/epgp)

Advantages of E-learning

- E-learning is advantageous to remote learners.
- E-learning is auto instructional or self-paced as well as instructor-based system.
- E-learning is multimedia based, and so graphics, pictures, animations, etc. is extensively used. Therefore it is very effective and the experience gained from it is ever lasting in the mind of the learner.
- E-learning is cost effective and has flexible timing
- Content matter can be modified or updated easily and quickly. Even the mode of presentation of content through e-learning can be modified easily as the technology of uploading the material is simple and conveniently available.
- E-learning can be used in both formal and non-formal setting of education
- E-learning provides two way interaction to the learner.
- E-learning is very helpful to a large group of students.
- Learning materials is uploaded by an organisation with the help of multiple instructors or experts. Therefore, the learner do not learn from one specific teacher, but from an organisation of instructors.
- Learners of e-learning courses learn more-faster than their traditional counterparts, as e-learning allows the learners to skip the material and select only those content material which they really need.
- E-learning is a very effective medium; it increase retention of the subject, and develops strong grasp on the subject. This is mostly because e-learning provides video, audio, and other modes of presentation. It also facilitate interaction.
- E-learning can repeat the lesson several times for the convenience of the learner. Therefore, the learner can repeat and practice uptill achieving the minimum level of competency.

Conclusion

E-learning makes learning interesting, interactive and fun! It has the right blend of content (instruction) and cutting edge technologies that offer the best benefits. E-learning is becoming an important part of education and it can provide new possibilities for digital generation. Government of India has been taking tremendous step to develop ICT. Indian country understands the digital generation needs to empower e-learning process among young aspiring minds. Indian Government started new projects day by day like NMEICT, e-PG Pathshala etc. but students utilization of this project is very less for their academics. The main objective of this project entitled on National Mission on Education through ICT; to spread quality education both rural and urban areas. Ministry of HRD started MOOCs Courses through SWAYAM Platform, it is open to study, whoever may be undertaking MOOCs courses and get e-Certificates. Hence, above valuable UGC INFLIFNET Projects very valuable to students, research scholars, all the academicians must make use of this project for their academic and research purpose.

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