

# CHANGING TRENDS OF EDUCATION: A STUDY OF E-LEARNING INITIATIVES OF INDIA

**Vinod Kumar Gautam**

(Research Scholar)

Department of Library and Information Science,  
BHU, Varanasi-221005

Email: [kumarvinodgautam14@gmail.com](mailto:kumarvinodgautam14@gmail.com)

**Ravi Ranjan Kumar**

(Research Scholar)

Department of Library and Information Science,  
BHU, Varanasi-221005

Email. [ravibhu19@gmail.com](mailto:ravibhu19@gmail.com)

**Abstract:-** In the early period sages and scholars imparted education orally but after the introduction of alphabets writing developed on Palm leaves and barks of trees after that Gutenberg's invention of printing replaced the oral education process of the ancients, so, too, has Charles Babbage's invention of computers replaced paper with the paper-less world. The mode of delivery of education has changed from the oral to the written to the printed and now to the electronic. The internet has completely changed the way of storing, processing and retrieving information; it has also made its exhaustive effect on teaching and learning. The method of classroom teaching is transformed to E-Learning. The present study will focus on the development of education system of India from ancient to present period. In this study, changing modes of education and learning will be focused. A descriptive study on e-learning initiatives that were taken by scientific agencies, research institutes/centers, academic institutions and government, will be presented.

**Keywords:** Education, E-learning, Distance mode, Gyanpedia, Sakshat.

## 1.0 Introduction

India has taken a very long leap in last few years to improve its educational system and structure, no. of colleges and no. of students has increased dramatically which helps educate a large no of student in different ways. Government set up lots of bodies, centers and started different project to educate its large no of population, government have started lots of distance and online learning programs. After the establishment of University Grant Commission (UGC) in 1956, UGC started the coordination, determination and maintenance of standards of university education, even IGNOU and other open schools offering distance education degree programs in different disciplines and providing rich study material in textual or audio-visual format through its eGyankosh, sakshat, Gyandarshan etc programs.

Kothari Commission (1964-66) has suggested that education must increase productivity. For that it suggested science education and work experience. Modern societies are distinct from traditional societies, for their use of science-based technology. The Kothari Commission also suggested education for modernization. The present century made a great advancement in scientific and technical knowledge as a result of industrial revolution. The trends of education have been changed as well as society has been improved.

## 2.0 Education in Traditional Society

The education in India has a rich and interesting history. It is believed that in the ancient days, the education was imparted orally by the sages and the scholars and the information was passed on from one generation to the other. After the development of letters, it took the form of writing using the palm leaves and the barks of trees. This also helped in spreading the written literature. The temples and the community centers formed the role of schools. Later, the Gurukul system of education came into existence.

In ancient India close relationship existed between the pupil and the teacher. The teacher used to pay individual attention on his students and used to teach them according to their aptitude and capability. Knowledge was imparted orally and the different methods of learning like memorization, critical analysis, introspection, story-telling, hands-on method and seminars

### **3.0 Education in Industrial Society**

Since the early 19th century the transformation from the pre-Industrial Age to the Industrial Age created a radically new articulation of the educational system. The processes of learning, however, greatly depend both on the intent and technologies of communication and meaning creation. Writing and the printing press changed learning, enabling externalization of explicit knowledge, rapid expansion of conceptual systems, and diffusion and transfer of cultures. The emerging information and communication infrastructures have an equally profound impact on learning. Learning is a process that requires memory, perception, and sense making. It usually depends on social interaction, and almost always the results of learning can be realized only through communication.

### **4.0 Education in Information Society**

Information society highlights the huge innovations in technology. The key innovations being technological advancements in information creation, processing, storage and transmission that have impacted the application of information and communication technologies in every sphere of society in which education is not excepted. Some of these technologies include computer technology and telecommunication technologies which have revolutionized the trends of education and learning.

A wide range of terms and definitions are employed in the discussion of learning and educational technology, particularly with the advent of many new technologies in information age. Indeed, it has been noted that there are: more than 20 terms which describe the employment of the new technologies in education, such as: Internet mediated teaching, technology enhanced learning, web-based education, online education, computer-mediated communication (CMC), telematics environments, e-learning, virtual classrooms, I-Campus, electronic communication, information and communication technologies (ICT), cyberspace learning environments, computer-driven interactive communication, open and distance learning (ODL), distributed learning, blended courses, electronic course materials, hybrid courses, digital education, mobile learning, and technology enhanced learning. E-learning "refers to any type of learning using electronic means of any kind (TV, radio, CD-ROM, DVD, mobile phone, personal organizer, Internet, etc.)"

### **5.0 Impact of ICT on Learning**

The information and communications technology offers tremendous opportunities for capturing, storing, disseminating and communicating a wide variety of information. Therefore, it is arguable that in most contemporary technology enhanced learning environments where media is skillfully integrated with the instructional method, media can and do play a very influential and critical role in learning and teaching. In these contexts, media play a critical and a very important role in achieving the intended learning outcomes for the students. They serve to motivate students with clever use of sound, pictures and animation. They are also very useful in representing contexts and situations from the real world which is harder to bring into the classroom for live demonstrations. Some learning environments skillfully utilize the strengths of various media attributes with powerful learning strategies such as problem solving, collaborative inquiry and critical reflection to engage learners in meaningful and motivating learning tasks. In such educational settings media take on a very important role in both learning and teaching. Learning and teaching is adversely affected when media are not skillfully integrated into the learning experiences. Conversely, learning and teaching is optimized when media have been carefully selected and applied with sound instructional strategies to serve specific learning needs in different domains of learning.

### **6.0 E-Learning-Definition and Approaches**

*E-learning* is commonly referred to the intentional use of networked information and communications technology in teaching and learning. The term e-learning comprises a lot more than *online learning*, *virtual learning*, *distributed learning*, *networked* or *web-based learning*. Fundamentally, they all refer to educational processes that utilize information and communications technology to mediate asynchronous as well as synchronous learning and teaching activities. In essence, e-learning is a computer based educational tool or system that enables you to learn anywhere and at any time. Today e-learning is mostly delivered through the internet, although in the past it was delivered using a blend of computer-based methods like CD-ROM. The various types or approaches of e-learning are represented below-

**6.1 Individualized Self-paced E-learning-** Self-paced learners are alone and completely independent, while facilitated and instructor-led e-learning courses provide different levels of support from tutors and instructors and collaboration among learners. Learners are offered e-learning courseware (also called Web-based training (WBT)), which can be complemented by supplemental resources and assessments. Courseware is usually housed on a Web server, and learners can access it from an online learning platform or on CD-ROM. Learners

are free to learn at their own pace and to define personal learning paths based on their individual needs and interests. E-learning providers do not have to schedule, manage or track learners through a process.

**6.2 Instructor-Led and Facilitated E-Learning-** In this model, a linear curriculum is developed that integrates several content elements and activities into a chronological course or syllabus. The course is scheduled and led by an instructor and/or facilitator through an online learning platform. E-learning content for individual study can be integrated with instructor's lectures, individual assignments and collaborative activities among learners. Learners, facilitators and instructors can use communication tools such as e-mails, discussion forums, chats, polls, whiteboards, application sharing and audio and video conferencing to communicate and work together.

**6.3 Group-Based E-Learning Synchronously-** It refers to situations where groups of learners are working together in real time via an Intranet or the Internet. It may include text-based conferencing, and one or two-way audio and videoconferencing. Examples of this include learners engaged in a real-time chat or an audio-videoconference.

**6.4 Group-Based E-Learning Asynchronously-** It refers to situations where groups of learners are working over an Intranet or the Internet where exchanges among participants occur with a time delay (i.e., not in real time). Typical examples of this kind of activity include on-line discussions via electronic mailing lists and text-based conferencing within learning managements systems.

## **7.0 E- Learning Initiatives**

### **7.1 The UNESCO-SALIS E-Learning Portal**

The Indian Society for the Advancement of Library and Information Science (SALIS), in collaboration with UNESCO, launched the eLearning Portal for Awareness Raising on Information Literacy. This e-learning project aims to raise awareness, sensitize and enhance information literacy competency skills of common information users as well as information professionals and educators in the South Asian sub region. Its objectives are fully in line with UNESCO's mandate to bridge the digital divide and UNESCO's vision of knowledge societies.

Presently this e-learning portal has the following modules:

1. Information Communication Technology
2. Information Literacy
3. Information Literacy Models and Standards
4. Life Long learning and development of life skills
5. Information Literacy Assessment
6. Information services for the disabled people
7. Freedom of Information/Right to Information
8. Sample Information Literacy Programmes for Academic Libraries, Public libraries, Special libraries, and Community Information Centres.

The Information literacy competency skills imparted here, have been derived from the existing international standards, adopted by the UNESCO, the International Federation of Library Associations and Institutions (IFLA), American Library Association (ALA), and other professional societies. Indian Library experts, in collaboration with lifelong learning experts, have developed the content of the modules in this e-learning portal. In order to access the different modules and participate in the Course Discussion Forum, a first-time user should opt for the user registration process. The learning system generates the unique login name and password which are required for subsequent access. The e-learning model has used Moodle.

### **7.2 E-GyanKosh**

Realising the potential of online learning to reach out to the unreached, IGNOU has embarked on major initiatives towards developing online learning environments for distance learners. IGNOU initiated the development of a knowledge repository in October 2005 to store, index, preserve, distribute and share the digital learning resources developed by the ODL institutions in the country. This repository is called e-GyanKosh. The meaning driven from e-GyanKosh is E=Electronic, Gyan=Knowledge and Kosh. e-Gyankosh 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. 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.

*e-GyanKosh* is built on the open source application DSpace, which MIT and HP Labs developed for creating institutional repositories. DSpace uses extended Dublin Core metadata standards integrated within the application for indexing the content. It also has a Lucene search engine integrated with the application

It has emerged as one of the world's largest educational resource repositories. It offers free, open access and is available to the world to facilitate self-learners and empower educators. More than 2,200 courses and 2,000 video lectures are available online in the repository. The print-based contents are available as PDF files and video programmes and are being provided through a special channel of IGNOU on YouTube, with the metadata link in the repository. The YouTube channel established for e-GyanKosh is quite popular, with 2,257 subscribers and 191,734 hits on the site as of 4 November 2012.<sup>3</sup> The repository also has a wiki for collaborative content generation.

### **7.3 LIVE (Library and Information Virtual Education)**

It is an initiative of Indira Gandhi National Open University, New Delhi to develop an in-house Learning and Content Management System for imparting online Education. It is envisaged as a complete virtual learning environment suite covering all the activities from registration to certification. In the first phase only the Master's Degree in Library and Information Science (MLIS) is being announced at international level. The virtual learning environment has the following features and process such as Walk in admission, integrated multimedia courseware,

Online counselling and mentoring, 24x7 learner support, portfolio based continuous evaluation, Assignment Management system, e-tutor based practical, group based online seminar, online project platform, and online term-end examination.

### **7.4 Sakshat – The One Stop Free Portal for Education**

Education serves as the pillar to develop and enhance the human resource potential and in turn leads to a more knowledgeable society. Broadband Internet is a powerful tool to spread education deep into the massive rural belt that India has. To exploit this vast potential and for providing anytime, anywhere access to educational services. The pilot project SAKSHAT: A One Stop Education Portal launched on October 30, 2006 by His Excellency, the then President of India to facilitate lifelong learning for students, teachers and those in employment or in pursuit of knowledge free of cost to them. The content development task for 'SAKSHAT' was looked after by the Content Advisory Committee (CAC) for the respective subject, which consisted of representatives from educational institutions like IGNOU, Delhi University, Kendriya Vidyalaya Sangathan (KVS), Navodaya Vidyalaya Sangathan (NVS), National Institute of Open Schooling (NIOS) and National Council for Educational Research and Training (NCERT) and prominent academicians in the field. In addition, some NGOs had also provided the contents developed by them free of cost for this portal. It aims at providing vocational skills to empower the youth through e-learning courses apart from providing routine information such as board/university exam results, addressing education and learning related needs of students, scholars, and teachers in distance education. The portal has been conceptualized keeping in mind the needs of all students, from KG to Ph.D.

### **7.5 e-PGPathshala**

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.

The portal is expected to let the user self-study, self-assess and explore more through suggested links. The aim is to include e-text (web-based notes, e-books, etc), historical backgrounds to different topics, points to ponder, animations, simulations, virtual labs, quizzes with feedback, multiple choice questions with answers and explanations, audio/video lectures, glossary, and web links, informs Bakhshi. The material would be based on UGC curricula.

### **7.6 Virtual Science Learning Centre (VSLC) Model**

VSLV Model was setup by Annamalai University for strengthening and popularizing science information and education among rural youth and school students in Cuddalore district in the South Indian state Tamilnadu. VSLC promotes the capacity building, confidence building and the personality development of the rural youth especially the young girl students. It builds a "Partnership in Learning" (PiL) Programme between the university and school girl students community through telecentres and web portal.

**7.7 Virtual Learning Environment, Institute of Lifelong Learning (ILL)**

VLE, an online environment of e-resources caters to several disciplines taught at undergraduate and postgraduate level. It is an initiative of Institute of Life-Long Learning, University of Delhi. Conceived in 2012, VLE today boasts state of art material that addresses emerging needs of a diverse student body, not only of Delhi University but other universities as well. Drawing from several successful Moodle models, the multi-media interactive contents loaded on VLE are categorized discipline-wise. VLE provides the courses in Commerce, Humanities and Social Sciences, History, Sciences, Interviews and Podcast.

**7.8 Institute of Clinical Research India (ICRI)**

Technology and Internet is increasingly playing a bigger role in education in India. ICRI, the leading institute in Clinical Research studies, has adopted new teaching methodology 'Blackboard Virtual Learning Environment'. Blackboard is patented programme providing virtual learning environment. It provides access to library resources, journals, study materials, papers, lectures, and updates from ICRI's partner University in UK, Cranfield University, to its students in India. To facilitate Virtual Learning Environment (VLE), all the students will be provided with a laptop. Also, all the campuses have been made Wi-Fi enabled with LCD panels in all classrooms. Software called Turnitin will checks for plagiarism automatically the non original work is detected and the students and faculty are alerted. We are confident the students will benefit immensely from this teaching methodology.

**7.9 Consortium for Educational Communication (CEC)**

The CEC is an inter-university centre on electronic media established by UGC (University Grants Commission). The CEC in coordination with its all educational multimedia research centres, has been producing television programmes in various subject categories in English, Hindi and Regional languages. All produced educational programmes are being regularly quality-checked before the telecast at CEC. 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 Audi o/Visual and Web Based material. CEC project basically concentrates on creation and dissemination of multimedia based learning resources.

**8.0 Conclusion**

The lack of awareness among learners they are not able to get the benefits from e-learning projects of India. This study aims to thorough some light and investigates the trends and development of some of the popular e-Learning project running in India. E-Learning involves almost all forms of ICT technologies which able to covers a wide range of users. But it is also remarkable thing that the future of e-learning will depend upon its management, the platform, its content, entities for Content Creation of e-learning and their expertise.

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