DEVELOPMENT OF EDUCATIONAL TECHNOLOGIES IN INDIA

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Abstract – Every day we hear about the names of various technologies in the present scientific and technological age, such as paper technology, cloth technology , sugar technologies, and glass technology, etc. In educational field also the term ' **Educational Technology** ' is being used in with modern aspect. Scholars believe that with the proper use of science and technology in the field of education expected results can be achieved. In teaching various technological tools can be used in the field of education.

Key words – Education, Technology , E- education , Tools.

The term Education has been taken from two Latin words Educare and Educatum , which exactly means to train or mould, to bring up or to lead out or to draw out, propulsion from inward to outward. Educare mainly indicates development of the latent faculties of the child.

According to Vivekananda Swami, Education is the manifestation of perfection already in man.

Education has a direct effect on the economic and social development of the country. India, like any other growing economy, relies on the development of its educational sector. Higher education brings the competitiveness and employment generation in India. However, research findings showed that the overall state of higher education is depressing in our country. There is a constraint on the availability of skilled labor (Agarwal, 2006). In many parts of the country; there are many socio-economic, cultural, time and geographical difficulties for people who wish to pursue higher education. When considering employability skills of the youth in our country, we come to know that there exists a lacuna in the quality of education and training imparted to students pursuing higher education. The difficulty before the education system in India can be summarized to be of the following nature:

Access to education- Although we may have been able to get rid the education System of bias among students during admission processes, there still other barriers such as infrastructure, socio- economic, linguistic and physical barriers in India for people who wish to get education.

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Quality of education- The syllabi for many courses remain rigid and therefore reduce the quality of the education.

Resources allocated- there is a substantial lack of resource distribution for the education sector.

As per the Radhakrishnan Commission report on university education, **Education is a powerful instrument of social, economic and cultural transformation for the realization of natural goals.** In order to take stock and provide improvement measures towards management education, the Govt. of India had formed various committees from time to time.

The National Knowledge Commission (NKC) was established by Government of India in 2005 in the country. The commission appointed a working group on management education under the chairmanship of Prof. S. L. Rao (Rao, 2005). This working group had studied various reports on management education since 1981 and along with existing state of business education in India Realizing the importance of Information and Communication Technology (ICT) the Ministry of Human Resource Development (MHRD) as per the Mission Document, ICT is the tool in education available to increase the current enrolment rate in Higher Education.

The Ministry also opened a web portal named —SAKSHAT a One Stop Education Portal'. The high quality e-content once created will be uploaded on SAKSHAT in all feilds and subjects. MHRD's Sakshat is one stop educational portal for 50,00,00,000 users. With information developed by UGC, AICTE, IGNOU, NCERT, KVS, NVS, CBSE, IITs and IISc, Sakshat will give links to vast resources and other links available on the web. Sakshat concentrates at tapping talent and will address all education and learning related needs of students, scholars, teachers and lifelong learners.

Several projects are in the final stage and are expected to change the way teaching and learning is done in India .The National Mission on Education through Information and Communication Technology (ICT) has, under its created Virtual Labs, Open Source and Access Tools, Virtual Conference Tools, Talk to Teacher programs, a Non-Invasive Blood Glucometer and also for simulated lab experiments, a Di. Electric frequency shift application development of resonator for cheap cost oscillators. The National Mission on Education through Information and Communication Technology (ICT) has been predicted as a Centrally Sponsored Scheme to leverage the potential of ICT Education is the main force of economic and social development in any country (Cholin, 2005; Mehta and Kalra, 2006). India, like any other knowledge economy, relies on the development of its educational sector. Higher education brings the competitiveness and employment generation in India. However, research findings have exposed that the overall state of higher education is depressing in the country. Mobile phone is the fastest growing technology platform in the developing world. India is the largest market for mobile phones worldwide, there have been a number of initiatives taken by

Govt. and private institutes where ICT has become an internal part in imparting education. At the institutional level many institutes, mainly private as of now, have provide online distance education and the private sector in India has already increased to this challenge. India is using of powerful ICT tools such as open source, satellite technology, local language interfaces, easy to use human-computer interfaces and digital libraries, with a long-term plan to reach the remotest of villages. University Grants Commission (UGC)-INFONET gives electronic access to scholarly literature available over the internet in all areas of learning to the university sector in India. UGC plansICT orientation programs for university and college. For developing the ICT skills of teachers, organizations like the National Council of Educational Research and Training (NCERT) and National Council for Teacher Education (NCTE) schemes have been implemented.

Azim Premji Foundation come up with the concept of Computer Assisted Learning Centre (CALC) in response to the need of the people in rural Karnataka. The objectives were attracting children to schools, creating excitement in and around the school, simplifying obscure concepts thereby making learning exciting and fundamentals strong and creating sound foundation to IT literacy.

President's Virtual Institute for Knowledge (PREVIK) was an project by the President, A.P.J. Abdul Kalam, to reach out to students, teachers and scientists all over the country, even in distant locations.

Government of India has released eSikshak, a e-learning framework and is giving free computer courses in Telegu, a regional language over its portal. The much said about NIIT Net Varsity provides training to 500,000 students annually through a network of nearly 3,500 centres spread across 33 countries.

Jadavpur University has developed a model of Multimodal Digital.

Distance Education (MMDDE) and has given the concept for dissemination of postgraduate education.

BITS Pilani is a technological university currently running Master's degree and Doctoral programs in various areas of science, humanities, management and various branches of engineering and technology.

Sikkim Manipal University of Health, Medical and Technological Sciences, is giving distance education programs in association with Manipal Academy of Higher Education (MAHE) and Manipal universal learning, breaking all hurdles of time, space and facilities as a part of its efforts to bring education to masses.

Yashwantrao Chavan Maharahtra Open University (YCMOU) has offered online programmes for its students since long. The school of education has given online programs in

teacher education catering to the need of the local people. Diploma in electronics engineering is one of the programs which is being applied completely online by the School of Science and Technology using Virtual Learning Modules (VCMs) on CD ROMs and streaming technology.

Benefits of Technology in education: There are numbers of benifits for using technology and learning materials in the university classroom.

• More active learning in class.

• Diversified teaching ways for teachers.

• Better student attention and realization of topic.

• Less time for lecturers to deliver

• Visual stimulation for students

Seamless access to learning resources: With mobile learning, one can learn and study anywhere - from the classroom to your desktop or laptop to your pocket. A true mobile learning system provides users to take a course on any device.

Flexible, portable convenience: The facility to customize learning schedules is a key advantage to m-Learning. Learners are allowed to a specific physical environment, a particular delivery channel, or a fixed set of times for undertaking training and education. Using the latest technology, students update their knowledge base on a just-in-time basis to prepare for meetings or presentations.

Freedom, power, and choice: m-Learning student can choose where, when, and how they will study. The variety of options includes online synchronized, online self-paced, downloaded courseware, and computer based training. m-Learning allows new levels of freedom with the ability to exercise control over learning patterns.

Organized productivity: With only a cell phone, handheld device, PDA, or hybrid unit, users can allow administrative functions, download courses, and assess their learning history through a learning management system. m-Learning allows an efficient way for learners to access key information and maximize their time.

Collaborative Learning: Both the capabilities of mobile devices and their comprehensive use contribute to their propensity to foster collaboration. Mobile devices provide easy communication with other devices of the same or similar type, enabling learners to share data, files and messages.

MOODLE, and Blackboard are three common web-based learning management systems widely are used in education, training, and knowledge management.

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MOODLE

MOODLE is a free software package designed to assist lecturers and students as a tool to provide in creation of quality teaching. The MOODLE is short form of Modular Object Oriented Dynamic Learning Environment built by Martin Douglas at Curtin University, Australia [10]. MOODLE has a number of benefits in education. MOODLE is very easy to install, upgrade and use. It can be installed on as many terminals as involved without an additional cost. MOODLE does not also needs modification on Unix, Linux, Windows, Mac OS and any other systems [12]. It is used for educational aspects which some other e-learning platform is lack off. Each user is provided an account and password to access the MOODLE portal site. Once logged in, users get access to the courses they are registered in. Lecturers are registered as users, they edit the course's site, including changing the activities and marking students. The contents of course and activities almost are in the middle of the page. Students can participate in the online survey in their free time (any time).

Blackboard

The blackboard is called a hybrid teaching tool. The blackboard is used by lecturers throughout the lecture to discuss ideas or identify main points. It is said that only main points or ideas be written instead of long drawn out pieces of information. The blackboard is useful tool to help students visualizing key aspects of the lesson but may make things hard if lecturers attempt to teach a large group. Blackboard assessments tool include:

• Tests • Surveys • Assignments • Grading • quiz/test features and functionality • Availability, grading, reporting, and others • Important technical/software considerations • Alternative forms of assessment Blackboard has a number of advantages:

• Integrate assessment of teaching materials

• Availability on demand

• Randomised question selections

• Automatic grading with feedback

• Reporting and analysis.

However, blackboard has a number of disadvantages:

• Not suitable for testing of all skills and activities of students

• Needs IT skills

• Time requires to design and input questions

• Security issue

• Plagiarism issue

Conclusions and further work -

The environment of higher education is developing all over the world. Increasing costs, reducing budgets and an rising need for distance education has made educational institutions re-examine the way that education has been given. In response to this changing scenario, e-learning is being used more and more frequently in higher education, creating new and exciting possibilities for both educational institutions and students. E-learning, or electronic learning, has been framed a number of different ways in the literature. In general, e-learning is the concept broadly used to describe "instructional content and learning experience delivered or enabled by electronic technologies". The broader definition, which will be given for the purposes of this research, can inculcate the use of the Internet, intranets/extranets, audio- and videotape, satellite broadcast, interactive TV, and CD-ROM, not only for content delivery, but also for interaction among participants.

The three prominant e-learning tools such as MOODLE, and Blackboard have been examined. We also analysed on the most important aims of each tool and analyse the advantages and disadvantages. Our teaching experiences suggested that the MOODLE is effective in the e-learning development. One of the main difficulties that should be taken in account, the current e-learning systems have some security issues because a security is not integrated into the e-learning development process.

References -

M. Ramim, Y. Levy (2006). Securing e-learning systems: A case of insider cyber attacks and novice IT management in a small university. Journal of Cases on Information Technology, 8(4), 24-34.

R.T Snodgrass, S.S Yao, C. Collberg, Tamper detection in audit logs. In: VLDB '04: Proceedings of the Thirtieth international conference on Very large data bases, VLDB Endowment (2004) 504-515.

V. Tan, "Using IVLE to Teach Large Classes – A Personal Experience", TLHE 2004 Proceedings, p. 443-448.

H. Wang, Y. Zhang and J. Cao. Effective Collaboration with Information Sharing in Virtual Universities (2009). In Proc. Knowledge and Data Engineering, IEEE Transactions, 21 (6), 840-853, ISSN: 1041-4347.

Agarwal, E. S. (2013). E-learning: New trend in Education and Training. International Journal of Advanced Research (2013), Volume 1, Issue 8, 797- 810 .

Mishra, S. P. (December 2007). E-Learning in a Mega Open University: Faculty attitude, barriers and motivators . Educational Media International, Vol. 44, No. 4 ,pp. 323–338.

Sangeeta Kakoty, M. L. (2011). E-learning as a Research Area: An Analytical Approach. International Journal of Advanced Computer Science and Applications, .

Sanjay Rajpal, M. I. (2008). E-Learning Revolution: Status of Educational Programs in India. Proceedings of the International Multi Conference of Engineers and Computer Scientists 2008 Vol I .

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