Virtual Learning Environment Scenario in Higher Education (Web-based Learning)

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Published Online: 09 May 2018	Education is a social process. The form and content of education of any age and society is a product of society-education dialectics. The transformation in the education system of India from the ancient Guru Kula system to today's virtual Learning system is a reflection of the changing social context. The new social realities, particularly the interplay between democratization of education, emergency of a knowledge society and globalization greatly influences the education process of all societies. In this context, the quality of education assumes added importance and becomes the primary concern of all the stakeholders in education. These statements look like descriptions of very obvious things. But this 'obvious' is also equally contentious and more so in higher education.
Corresponding Author: **Dr. Tapan Kumar Shandilay**	Today, globalisation has generated a good vibration and life for higher education. The new era of technology enabled education or 'e-Learning' is displacing the outdated traditional methods of learning. E-learning is also a broader term than 'on-line learning', 'virtual learning' or 'online education' which generally refers to purely web-based learning. In cases where mobile technologies are used, the term 'm-learning' is used.

(A) . Virtual Learning Environment (VLE) [1]

The concept of Virtual Learning (VL), described by various terms such as e-learning, computer assisted learning, technology enhanced learning or online learning is a flexible mode of learning with learner at the centre. It provides resources to the learner in digital format, 24x7, enabling him/her to study at his/her convenience. Virtual Learning (VL) takes place owing to developments in ICT. VL takes learning outside the four walls of the classroom aiming at universal learning. It is live, two-way, interactive mode supported by multimedia lessons providing links to the knowledge repositories across the globe. It removes all barriers in knowledge transfer and dissemination. VL enables a society to move towards knowledge society by making knowledge freely available to all.

A virtual learning environment is a term that refers to technology which supports teaching and learning; it involves collaboration, communication and content tools, as well as providing students with an online personal learning space. VLEs do not decrease the importance of the classroom or the teacher-they enhance the learning and teaching experience. Their features vary depending on the specific VLE, but usually teachers/lecturers can upload lecture notes, create quizzes for students to complete online, and set students assignments, which the students can then submit online vie the VLE (and the teacher can usually mark and return work online too). Often there is an attached email features and a chat feature where students can discuss work. Usually students can keep track of their grades on the VLE, and the teacher can keep track of all of their students' grades. Some VLEs are commercial software package which are uploaded onto servers, and others are open source (free) and web based. Anyone with a computer, web browser and network connection can access the VLE both in and out of college/university. It enables teaching and learning to take place any place at any time- a college/university with no physical boundaries.

(B) . E-Learning: An effective approach to change Management

E-Learning transforms education in ways that extend beyond the efficient delivery or instrument value of traditional approach. E-learning cannot be egnoved by those who are seriously committed to enhancing teaching E-learning in High Education. The rapid exchange of information, and networking in addition to the great advances in information technology have encouraged most universities world-wide to deploy ICT technologies in their own strategies. There have been several developments of a number of tools and web services in order to accomplish the

objectives of publishing the course content, facilitating communication and in answering institutional daily needs in order to support learning flexibility and cost efficiency. In fact, contemporary ICT technologies have provided many supports and facilities to enhance modern learning settings [2]. One of the popular options world-wide in higher education institutions is the Virtual Learning Environment (VLE). The VLE provides a unified platform for content delivery, communications, assessment, and course management; with managed interfaces linked to the institution's central information systems and resources [3, 4]. It also helps to improve students' skills through engaging them in online learning activities and communication [5]. Unfortunately, however, without effective implementation, many features and tools of the VLE are left unused [6, 7]. For any university that aims to implement a VLE successfully, it will be a great challenge that needs strategic planning to ensure the efficient acceptance and facilitation of effective implementation. The pure installation and integration of the system across the university without addressing cultural changes through strategic planning and programmes could lead to a failure in the adoption [8, 9]. Research surveys suggest that higher education institutions lack coordinated strategies for implementing new e-learning technologies, and are typically relying on evolving local initiatives [6].Therefore, a well designed programme of change management is required to prepare the users for the VLE, reduce their resistance, gain their acceptance and involvement and then ensure an effective use. In fact, the development of strategic plans that address change management, supporting staff, and establish a technical infrastructure is a key success factor that is needed to keep up with current higher education requirements and challenges [10].

(C) . VLE: A Software System for Higher Education

A virtual learning environment (VLE) is a software system designed to support teaching and learning. VLEs generally operate on the World Wide Web, and, therefore, they can be accessed both on and off-campus, provided that the users are registered and can access the Internet. This overcomes the limitation of traditional face-to-face teaching, and ensures that learning is neither confined to geographical location nor time. VLEs are becoming more popular and embedded in many higher education institutions around the world. It is not only because of their flexibility, but also because they provide a wide variety of tools or facilities, including content delivery, assessment, evaluation, communications, and so on (Chin, 2004). [11]

In India, the education processes are primarily class room lectures, presentations and laboratory experiments. These are supplemented with audio-visual aids like the use of projector, stereo systems and the projection of films. Students are required to listen to understand. They find it less comfortable to interact due to their perceptions of the

atmosphere and the circumstances leading to the unsatisfied learning experience. However, this is not true in all cases. Many find it a better option to have face-to-face interaction during the learning process.

(D). VLE: A Teacher free Class room

A Virtual Learning Environment (VLE) is a learning management system that is designed to support teaching and learning in an educational setting over the network from remote locations. It enables the delivery of course contents and management. It provides the ability for users to communicate easily [3, 5]. It also integrates the student information systems and authentication protocols to control who access what via user name and password [12]. A VLE could be linked to the university administrative systems enabling the access to students' records ensuring accurate student data [13].In higher education, virtual classroom, a teacher free classroom has got bright future in India. A virtual classroom in one where the virtual reality is enhanced. It is a totally technology enabled class room environment. Virtual Reality (V.R.) is a 3D learning environment where the learner can explore the learning concept. Learning is experienced through games or simulated situation. It brings a real environment while wearing a headset and data glove in an immersive virtual reality environment. In the areas of Medicine, Engineering, Astronomy and other skill trainings, virtual e-Learning will become indispensable. 2D and non-immerse virtual reality situations are available in many higher educational institution in India. Since this type of e-learning brings out the joy of learning, every distant learning program should incorporate virtual classroom communication. All technical higher educational departments should prepare separate virtual reality modules for each lesson (Nelasco, Arputharaj & Paul 2007) [14]. Most higher education institutions are using or planning to use a VLE, for one reason or another, whether for distance or blended learning [15] .VLE offers a range of learning tools and functions that aid in delivering, communicating, and managing the course. For instance, communication facilities such as e-mail and discussion board; announcements and a bulletin board facility; assessments and testing facilities; scheduling/calendar; assignment submission; integrated web 2.0 tools such as wikis, blogs, whiteboard, and authoring tools; polls; and many other features. Modern mass higher education presents many challenges for both learners and educators as it has brought larger classes, more diverse students, and higher interest in teaching quality and graduate attributes [16].

(E). On-line teaching & Learning

Now a day, we have examples of online teaching and learning taking place in India. Indira Gandhi National Open University (IGNOU, 2009) is offering six online study programmes namely Masters in Library and information Science (MLIS), Post Graduate Certificate in Cyber Law

(PGCCL), Post Graduate Certificate in Agricultural Policy (PGCAP), Post Graduate Diploma in Food Safety and Quality Management (PGDFSQM), Post Graduate Diploma in Acupuncture (PGDACP) and Appreciation Programme in Sustainability Science (APSS). To support the programmes and otherwise provide facility for democratic learning the University provides educational material in various other disciplines through the online repository named e-GyanKosh.

(F). VLE: Advantage & Disadvantages

O' Leary, Ros has been given some commonly perceived advantages and disadvantages of using VLEs.VLE can help teaching and support staffs' management and deliver a variety of daily tasks, including:-

- General class administrative and organization;
- The creation of lesson plans using existing resources;
- Assessment and monitoring of students;
- Allocation and marking of on-line assignments;
- Discussion and support with students on line;
- Submit and track their assignment on line via a personal home page;
- Contribute to and participate in discussion with classmates and other schools via the various conferencing tools;
- Work at their own pace and out of school –this is particularly beneficial to learners with special educational needs, such as students in hospital or children to attend regular classes for health reasons;
- Facilitates self learning at the learner's and faster;
- Facilities faster and cheaper delivery of the material;
- Promotes better teacher-student interactivity;
- Enables to update learning materials speedily;
- Easy online delivery of materials;
- Easy to use for both students and teachers;
- Widens student access on and off campus to learning materials and resources;
- Offers flexible support for educators who do not need to be in a fixed time or place to support and communicate with the students;
- Has the potential for new ways of learning and teaching such as active and independent learning which make use of online communication, online assessment and collaborative learning.

(G). Disadvantage of VLEs

The following are the disadvantage of VLE:-

- The student and tutor need reliable access to a computer and internet.
- The student and tutor need basic information technology skills.
- Training is required for both tutor and student.
- The development of high-quality learning materials is time-consuming and expensive.

- Online tutoring can be more time-consuming than face to face tutoring.
- Learning is a social process and many people enjoy face-to-face tutoring.
- The use of the large virtual learning environments is expensive and may demand additional equipment and specialized staff.
- Some learning environment require state of the art computers and the most up to date browser.
- Blended solutions can be expensive as they may involve the development of expensive online learning resources and providing technology bases support as well as face-to-face support
- Can become a 'dumping ground' for materials not designed to be delivered online.
- Copyright and IPR of materials need to be considered.
- Off campus access to hardware and networks can be problematic for both students and educators and raises issues of equality. Stability legislation and accessibility to online materials also need to be considered.
- Need to plan online support carefully to avoid overload.
- Such independent learning still needs to be guided and supported. Appropriate training and ongoing support is still needed for both students and educators.
- Lack of student motivation.
- Many people find it daunting, especially at first.

Concluding Remarks:-

Significant changes have taken place in the education sector. The educational activities and learning process are no longer confined to the classroom and, therefore, the domain of education is no longer limited to formal schooling or higher education. The educational process is not only mediated by classroom-based curriculum transaction but also by media, both electronic and print, information and communication technologies, books and journals etc. Learners today have access to more current knowledge through non-institutionalized means.

Virtual Learning Environments in a effective tool for higher education institutions for supporting and facilitation both teaching and Learning in a broad. Though VLE has removed the barriers of access to knowledge yet the learners have to be enlightened and empowered to make use of these facilities. They have to be motivated and independent learners. Learning-which used to be teacher centric-is now learning-which used to be teacher centric-is now learner centric. It is in this contex that there is a lot of mention of terms like Information Literacy (IL) and Digital information Literacy (DIL). IL empowers an individual to access, find and use information to seek knowledge and thus become an independent learner. Higher education institutions vary widely in their mission and student profile, IL programs should be designed to meet specific needs rather than a prescribed set of criteria. "Implementation of a particular

approach or program depends on many institutional and situational factors such as audience, purpose , budget , staffing , facilities , and time" Virtual worlds are, however, not free of problems, technological and social; technological in terms of hardware, software and intelligent use of VLE system can bring a positive change in the scenario of teaching-learning and learning outcomes in the field of higher education in India.

The fast pace of generation and application of new knowledge, especially in the fields of science and technology, and its impact on the daily life of people brings into focus the importance of introducing learners to the rapidly changing world of knowledge. The need for the development of human skills, including life skills, that meet the demands of the emerging knowledge economy and society highlights the need to promote the acquisition by learners of knowledge and skills on a life-long basis to enhance their capacity to adapt to changing skill requirements. The changing social contexts of education as well as the national concerns for achieving the goals of equity and inclusion demands a changed approach to education for enhancing opportunities for all learners to become successful in their learning experience and making all educational institutions responsive to the learning Ministry of Human Resource Development, Govt of India Some Inputs for Draft NEP 2016 Page 5 of 43 needs of diverse student population groups in order to ensure equitable educational outcomes for all. The use of new information and communication technologies, especially of internet, has expanded dramatically during the past few years. New technologies are transforming the way in which people live, work, and communicate. The new technologies have brought about easy access to new pools of information and learning resources and new learning opportunities for learners. Integration of new technologies into educational settings has emerged as a priority task in the education sector.

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