

## Chapter 20

# Open Source Software Virtual Learning Environment (OSS–VLEs) in Library Science Schools

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### **ABSTRACT**

*A Virtual Learning Environment (VLE) is a software system designed to facilitate teachers in the management of educational courses. The system can often track the learners' progress, which can be monitored by both teachers and learners. While often thought of as primarily tools for distance education, they are most often used to supplement the face-to-face classroom as well as blended learning. Plethora of research conducted on VLEs has reported positive impacts from various contexts. Keeping in view the benefits, the work has been initiated to review concept, features and issues of virtual learning environments. Some of the most used OSS VLEs are discussed. Further it determines the suitability of a VLE for higher education. The chapter also explore and identify the recent contributions to the concept by analyzing ongoing virtual learning initiatives and projects by different organizations and information centres to stimulate future Research and development trend in the field.*

### **INTRODUCTION**

The cost of higher education with the attrition of formal learning and the rise and evolution of informal learning presents a unique challenge to academic institutions. Students can no longer afford the cost of textbooks, and the use and embracement of proprietary software limits the freedom of knowledge exchange. The situation is further stimulated by considerably changed attitude and skills of students in IT over the last few years. The transformation of web from static to dynamic has changed the perception of the younger generation towards information presentation and availability. The younger generation now expect to be in 'constant connectivity' with friends and family taking the benefit of participatory and interactive nature of the web. They increasingly expect technology to have a significant role in their learning also. Learning styles are growing fast as the technology grows in the world. New techniques are forthcoming

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within the higher education system to get the better student's presentation, tutors philosophy and the institution enlargement. Information and Communication Technology innovates the new technologies for conversing the information and knowledge to have a different transform for teachers to teach and for students to learn Ruíz, Martínez & López (2016). So, need emerged to rethink how we teach and how we use learning technologies and how education is delivered. In response to this changing environment, e-learning is being implemented more and more frequently in higher education, creating new and exciting opportunities for both educational institutions and students. E-learning means "instructional content or learning experience delivered or enabled by electronic technologies" (Ong, Lai & Wang, 2004). Which more recently, include mobile and wireless learning applications. E-learning is increasingly adopted in the workplace for supporting professional development and continuing education; however, in higher education, the use of e-learning is predominantly used as a tool support teaching (King & Boyatt, 2015).

The variations in the configuration of e-learning offerings can be described through a number of attributes. One of such attributes is the use of VLEs. A Virtual Learning Environment (VLE) is a software system designed to facilitate teachers in the management of educational courses. The system can often track the learners' progress, which can be monitored by both teachers and learners. While often thought as primarily tools for distance education, they are most often used to supplement the face-to-face, classroom as well as blended learning. VLEs are defined as "computer-based environments that are relatively open systems, allowing interactions and knowledge sharing with other participants and instructors" and providing access to a wide range of resources (Wilson, 2006). "The Joint Information Systems Committee (JISC) considers a Virtual Learning Environment (VLE) an online environment in which learners and tutors participate in "on-line" interactions of various kinds" (JISC, 2000). Besides many more names VLEs are also referred as online learning environments, learning management systems or collaborative learning software (Britain & Liber, 2000). The first systems that fitted the criteria of VLEs as we know them now started to emerge between 1995 and 1997 (Stiles, 2007). VLE is a boxed system that mediates between teacher(s) and student(s). They have a consistent and customizable interface and a clear navigational structure (Stiles, 2007). Access to the environment is often ubiquitous and supports anywhere learning with the support of internet connection (Jacobsen & Kremer, 2000).

The value of a VLE is to fully bring out the characteristics of both "Learning Any Where" and "Learning Any Time," and the purpose of a VLE is to emphasize and diffuse thinking models, diverse viewpoints, independent thinking, etc. (Chou & Liu, 2005). Plethora of research conducted on VLEs has reported positive impacts from various contexts. They can; increase enthusiasm and confidence, improved readiness to learn, promote reflection, accommodate the needs of students and broadly reported improved course assessment performance (Means, Toyama, Murphy, Bakia and Jones, 2009). More recently, the research targets at using on Web 3.0 – based personalisation of learning objects (LOs) while learning in virtual learning environments (Kurilovas, Kubilinskiene & Dagiene, 2014).

Keeping in view the benefits, the work has been initiated to review concept, features and issues of virtual learning environments. Some of the most used OSS VLEs are discussed. Further it determines the suitability of a VLE for higher education. The chapter also explore and identify the recent contributions to the concept by analyzing ongoing virtual learning initiatives and projects by different organizations and information centres to stimulate future Research and development trend in the field."

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