

A Review of Application of Web 2.0 and Open Source Softwares in E-learning: A Baseline Survey in a Private University, Kenya

Peter Namisiko¹, Robert Mindila², Emily Chepkoech³ and Raymond Nyeris⁴

¹ Department of Information Technology, Mount Kenya University, Kitale Campus, P.O BOX 2445-30200, Kitale

² Department of Accounting and Finance, Mount Kenya University, Eldoret Campus, Eldoret

³ School of Education, Mount Kenya University, Kitale Campus, P.O BOX 2445-30200, Kitale

⁴ School of Education, Mount Kenya University, Kitale Campus, P.O BOX 2445-30200, Kitale

Abstract

E-learning has become popular in many higher level institutions due to advancements in technology such as web 2.0 and Free Open Source Softwares. Many universities have deployed E-learning systems where E-learning based and non E-learning based educational environments coexist. Research in this area has mainly focussed on the technologies such as Web 2.0 and Free Open Source Softwares. The actual adoption, deployment and inclusions of such technologies in Institutions of Higher Learning remain undetermined. This study sought to determine the application of Web 2.0 and Open Source Softwares in E-learning with specific reference to actual adoption, deployment and inclusion. Descriptive Survey Design was used in a local Private University in Kenya to collect data about students on actual adoption, deployment and inclusion of Web 2.0 and Free Open Source Softwares in E-learning. The study found out that Open Source Softwares were the least deployed and adopted technologies in E-learning. ILIAS, EFRONT and Claroline softwares had 100% No response implying that respondents were unaware of existence of these softwares in E-learning.

Keywords: *E-learning, Web 2.0, Open Source Softwares*

1. Introduction

The advent of the World Wide Web has seen revolution in the manner in which E-learning is conducted. This can be seen from the content of learning materials and faster and more secure availability of internet with the advent of wireless networks and very high-speed rate (Sbihi & Kadiri, 2010). Although various authors disagree as to what extent, learning becomes 'E-learning' there is a general agreement that internet technologies specifically Web 2.0 tools and Free Open Source Softwares plays an

important role in shaping the future of E-learning (Clark & Mayer, 2011). The last few years have seen a change in the way the internet is used for learning. In 2004, Web 2.0 appeared as a new vision of the Web which considered the user not a simple consumer of information but as a potential producer of the web content. This distinction meant that the internet will be used like a social software which contrast the earlier technologies that were passive (Greenhow, Robelia, & Hughes, 2009). This radical approach in E-learning has significantly increased the quantity of information and allowed a certain organization of users in the form of communities participating in the production, communication, sharing and diffusion of content. For instance, e-Learning has evolved through a series of overlapping stages. Stage 1 consisted of communication and course management tools, from web page to, course management systems, PowerPoint, email, bulletin boards, and chat rooms. These tools are synonymous with Web 1.0 technologies.

Web 2.0 technologies that have made E-learning possible includes: wikis, blogs, podcasts, Really Simple Syndication (RSS 2.0) and tagging (Safran, Guetl, & Helic, 2012). Web 2.0 technologies emphasize active learning, collaboration, and enhanced interaction through use of Wikis, blogs, podcasts, tags, and social networking. E-learning has not only been influenced by Web 2.0 technologies but also Free Open source softwares. (Azeta, Oyelami, & Ayoo, 2008) defines Open Source Software as software that is made available along with source code at no cost. The freedom to use, study, redistribute and modify the software to suit user's needs is granted to the consumers since the user does not use the software as it is.