SMART E- LEARNING ENVIRONMENT, USING WIRELESS PEER TO PEER NETWORKS AND SMART BLACKBOARD APPROACH

Kevin O. Gogo and David M. Gitonga

Chuka University

ABSTRACT

Smart technology has been used in various environments to ease human tasks in achieving some goals. In this paper we introduce smart e-learning environment using wireless peer to peer networks and smart blackboards approach. E learning has been advanced through various means, but the learning process has not been extensively advanced in the classroom between students themselves, digital libraries, and their teacher in the classroom. Hence, from this gap we come up with this approach for e-learning. In our approach first we ensure that there is a smart blackboard. This is a blackboard that is in form of a big touch screen computer that has all the computing capabilities, alongside the capabilities to link wirelessly with the students laptops (devices) using its own created Wi-Fi network, print screen of all the data that has been written on it using a marker pen, link with and access the students data on their laptops using network neighborhood, also link with the publishers and other smart blackboards using the internet. If this technology is rolled to our schools, we expect smart e-learning environment to be created in our classrooms, thus through: - enabling the smart blackboard to share data with students in class, link directly to the book publishers and digital libraries databank such that students can read the books through the smart blackboard, teacher could as well monitor what the student is doing on their devices, as well as what a teacher writes on the blackboard could be scanned and sent to the students devices on the go. In future we also expect that these smart blackboards should be linked with the parents' devices such that there could be exchange of data between different school, teachers, mentors, digital libraries, examiners, publishers, programmes of interest, students and parents, in order to create an e-learning superhighway.

Key Words: Smart environment, e-learning, information superhighway