ABSTRACT

The number of people depending on the web as a source of information has risen over the past years. This has not left the education sector behind. The main challenge learner's face while using the web is getting the right content, reducing the time spent in searching, collaboration and accessing content anywhere anytime hence the need for a context aware ubiquitous learning framework. The framework consists of components that query websites based on user profiles, aggregate content from various sources, encourage collaboration and transforms content to best fit a user's device irrespective of the location. Content aggregation is achieved through the use of Mashups. These are interactive web 2.0 applications that combine content/information from multiple sources. Everyday mashups are developed, however few support formal learning with ability to handle dynamic data. A prototype of this framework was implemented with the guidance of Dr. Robert Oboko using the feature driven development agile methodology. Students taking Msc in computer science at the University of Nairobi tested the usability of the framework through a usability survey based on a 5 likert scale. They further tested the prototype and rated the content, collaborated amongst themselves and finally took a usability test to determine how well the framework met the set objectives. The results of the survey indicated that the framework was well received and appropriate in the formal learning setup. The study still leaves room for improvement, such as introduction of location based context awareness into the framework to support informal learning. These will be explored in future research.