Informatics Institute of Technology

In collaboration with

University of Westminster, UK.

Elaborated Feedback for Online Assessment Systems

A dissertation by

Ms. H.G Ershadi Sayuri Jayatilaka

Supervised By

Mr. S Jayasinghe

Submitted in partial fulfillment of the requirements for the

BSc (Hons) Software Engineering degree

Department of Computing

May 2016

Abstract

In traditional learning, teachers provide individual feedback and recommend LM to improve the students' knowledge and to motivate, based on the skills and personality of the student. But in e-learning, there is no role of a teacher. The e-learning systems provide lot of learning materials for the students after an exam regardless of matching reading materials with the students' knowledge and their reading preferences. If the e-learning system does not provide learning materials students tend to google. Following both these approaches create the overloaded information problem since the students cannot identify the best article suddenly through web. Due to this problem a solution is suggested with recommending learning materials to students based on their knowledge, interaction data, learning style model with their reading preferences. A novel way of mapping students' knowledge, interaction data and reading preferences is introduced by the solution and in order to develop the solution model was selected as the LMS and creating feedback with the learning material recommendations is implemented as a REST service. The problem is addressed considering the software engineering students who tries to do online assessments.

The proposed system was evaluated by evaluators of various domains. Eventually, the test results attested that the analysis, design, implementation and documentation have been carried out in an effective and in an efficient manner.

Subject Descriptors:

G.4. Mathematical Software

H.3.2 Information Storage

H.3.3 Information Search and Retrieval

Key Words:

Recommendation Engine, Machine Learning