DEVELOPMENT OF E-LEARNING MATERIAL CATALOGUE SYSTEM BASED ON KNOWLEDGE MANAGEMENT USING XML TECHNOLOGY

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ABSTRACT

E-learning system material being developed leads to use packaging with learning object technology to embody the effective use presentation of the material. Learning materials requires a system of organization and proper management in order to facilitate the user in getting the material to suit the needs. Organizing and managing the e-learning materials can be realized by using the catalog system. Until now the existing catalog system still has shortcomings that can not present the right material for the right users and at the right time. This final project aims to develop a catalog system that can provide recommendations of learning materials based on the knowledge possessed by the user. Organizing and managing learning objects in the catalog system make use of the knowledge possessed by the user in the form of academic condition information. This realized by using the method of knowledge management. While the learning materials recommendation system approached by the method of text mining in the forming process ontology and vector space matching and also Extensible Markup Language (XML) technology which is one of the ontology languages to produce a weight value of the similarity between learning objects with user information academic conditions. This research produced software of catalog system that is able to provide recommendations of materials for two courses and nine learning objects with weights similarity from 0.0756 to 0.2182.

Keywords: Catalogue System, E-Learning, Knowledge Management, Ontology, XML.