

## Abstract

On the same way with the information content decrease in world wide web (WWW), e-learning has follow the decrease too. The e-learning strategy basically is done by doing web developing strategy. A web has many hidden information inside, one of them is in web server log. The information in this web server log could be an interesting knowledge sources which web usage minning can be applied to get any useful information to develop the e-learning.

In this final task, the web usage minning technique is used to predict user activity in e-learning browsing. The method that used to solve the problem in this final task is Markov Chain Model (MCM). It because of MCM is one of the method that using probability discrete value from the previous data.

The traversal value result in link graph that formed at training step will be used to find the movement probability value from one content to the next content which represented in transitional probability matrices. Then, this value will be used to predict the user step for the next content. The bigger movement probability value from one content to the next content, will make the user probability in choosing that content is bigger too. The results of the experiment describe that prediction accuration lable of contents frequency for May and June 2008 is 83.56% and 81.78%, whereas the result of content sequence accuration level is 86.44% for May and 87.39% for June 2008.

**Keywords :** *web server log, web usage mining, discret probability, markov chain model.*