Prediction of User Intentions Using Web History

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Abstract

In the present internet has become much more necessary thing to humans and we use it as a way of sharing information and way of communication. If the networks can identify the user's intentions, it will be affecting to increase productivity and personalization. Predicting user intention(s) is interesting and useful for many applications such as threat identification, imposing restrictions and cashing web details. The aim of this research is to develop a method to predict user intention using supervised machine learning methods with user's past historical behaviours. Experiments in this study used access log on a local server and focused on creating single user prediction and multiuser generalize prediction models. Experimental models were created based on several multi-classifier algorithms, such as Support Vector Machine (SVM), Multilayer Perceptron (MLP) and K-Nearest Neighbor (KNN). KNN based models outperform other used algorithms. Also results in this study show that there is some sort of behavioural patterns for peoples to use the internet according to the time and the groups they interact.

Key words*: Access Log, Behavioral Patterns, Historical Behaviors, Multi Classifier, Proxy Server, User Intentions*