Optimization of idea mining model based on text position weight

ABSTRACT

Predictable behaviour of any system is important in order to ensure that its performance is always optimal. Researchers have used many techniques to model system's performance based on the data collected in many different runs to predict the ideal setting for any system. In idea mining, the probabilistic weights of the position of idea in a text needs to be set for optimal setting. In this paper, an experiment with a total of 10,000 runs with different randomly assigned weights is conducted for the idea mining model in order to discover the optimal setting. Based on the mean average score (MAP) score produced in each run, a prediction of the optimal weight is discovered by using the curve fitting based on the least squares method and the artificial neural network (ANN) model. Based on the findings, the ANN model appears to be more suitably fit as compared to the least squares method, which suggests that the data is nonlinear in nature.

Keyword: Idea mining; Text position; Optimization; Curve fitting; Artificial neural network