

Abstract

Information Retrieval (IR) has been developed for help user in search user information need. User need to achieve satisfied document retrieval push researcher to find better method in searching. Genetic Algorithm (GA) is one of natural method based on random searching that can improve result performance. GA can search in high dimensional space and can find solution in nearest global optimum. Nowadays, GA has implemented in Information Retrieval for Relevan Feedback process. The way to improve performance in Information Retrieval is do modification in user query. Documents Result in first searching are used in Genetic Algorithm to form a new query optimization in relevan feedback. Performance Genetic Algorithm is influenced by the fitness function. To examine impact of fitness function, in this Tugas Akhir is used three fitness function, there are Cosine, Dice, and Overlap. The final result is Information Retrieval with three fitness function for Genetic Algorithm, GA-Dice have a better performance to get new keyword for document relevan feedback.

Keywords: *Information Retrieval, Genetic Algorithm, query modification, fitness, Cosine, Dice, and Overlap*