

Avoiding Premature Convergence of Genetic Algorithm in Informational Retrieval Systems

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Abstract:

Genetic algorithm is been adopted to implement information retrieval systems by many researchers to retrieve optimal document set based on user query. However, GA is been critiqued by premature convergence due to falling into local optimal solution. This paper proposes a new hybrid crossover technique that speeds up the convergence while preserving high quality of the retrieved documents. The proposed technique is applied to HTML documents and evaluated using precision measure. The results show that this technique is efficient in balancing between fast convergence and high quality outcome