# A Discrete Particle Swarm Optimization Algorithm for Domain Independent Linear Text Segmentation

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## Abstract

Linear text segmentation has been used in several natural language processing tasks, such as information retrieval and text summarization. It has been proven that linear text segmentation is beneficial to these tasks. To improve the performance of linear text segmentation, a novel domain independent linear text segmentation algorithm, called DPSOSEG, is proposed in this paper. DPSO-SEG applies the Discrete Particle Swarm Optimization (DPSO) algorithm to find the optimal topical segments. The performance of DPSO-SEG is compared with some state-of-the-art linear text segmentation algorithms. The experimental results show that DPSO-SEG is advantageous in its controllable time complexity and its promising accuracy, especially when the segment size is consistent.