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## A New Approach for Automatic Query Expansion

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**Abstract:** This study investigates the effectiveness of a new automatic query expansion technique for the purpose of Information Retrieval (IR). Automatic query expansion have been studied in information retrieval research to solve the problem of short queries and word mismatch between user's queries and author's documents. The proposed approach uses a metric type correlation measure instead of an association type correlation measure. This type is applied on one of statistical methods called local context analysis. The idea of metric cluster is to analyze the distance between two terms in the computation of their correlation factor. The local context analysis approach and the proposed approach have been implemented and evaluated on a collection from Text Retrieval Conference (TREC). The experiments show that the performance of the proposed approach is better than the local context analysis approach.