**CONCLUSION**

Further, the ARF tree is proposed to organize the document vectors based on their similarities. At last, a depth-first search algorithm is designed to improve the search efficiency for the data users which is extremely important for large document collections. The performance of the approach is thoroughly evaluated by both theoretical analysis and experiments .The proposed scheme can be further improved in several aspects: First, in this paper, we assume that each node in the access trees represent an “AND” gate and this limits the flexibility of assigning the attributes to the documents. In the future, we will attempt to introduce “OR” gates into the access trees. Second, the access structure of the document collection is generated in a greedy manner and we will check whether it can be further optimized to decrease the number of access trees.