Informative Multimedia QA using Web based Approach

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Abstract

Automated question answering (QA) still faces challenges such as processing and deep understanding of complex questions. In some cases, human intelligence obtains better results than automated approach. The result shows that community question answering (CQA) emerged as an extremely popular alternative to obtain information in which users are able to obtain better answers provided by other participants. But existing CQA forums mostly support textual answers, which are not informative enough for many questions. In this paper we propose a system that enriches textual answers with corresponding media data in Community QA. Our model consists of three components; query analysis for multimedia search, answer medium selection and multimedia data selection and presentation. This system automatically determines which type of media information should be added for textual answer by collecting data from web to enrich the answer. Multimedia QA scheme uses diversification methods to collect the best suitable answers based on questions and make the enriched media data more diverse. It determines the type of medium to be used by adding Nave Bayes Classifier, which helps to generate queries based on existing QA dataset pool and performs multimedia search. This
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scheme also performs query adaptive re-ranking and redundancy removal to obtain a set of images and videos for presentation accompanying textual answer. It uses Page Ranking algorithm which result shows that it provides more satisfactory and effective results.

References

Index Terms

Computer Science

Information Sciences

Keywords

CQA, medium selection, question answering, Reranking