Design and Implementation of a Cost Effective Ranking Adaptation Algorithm

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Abstract - Ranking plays an important role in vertical search domains as it helps users to view the best results quickly. This is required as search engines return huge number of records. Generally a ranking model is required for every domain as the data in each domain is different. However, it is tedious task to develop separate ranking model for each and every domain. A ranking model which can adapt to different domains can solve this problem. This paper proposes a new algorithm which adapts to various domains thus eliminating repetition of writing separate algorithm for each domain. An algorithm adapting to new domain reduces training cost thus making it cost-effective. We also proposed a ranking adaptability measurement for estimating the adaptability of ranking model. A prototype application is built to test the effectiveness of the application. The empirical results revealed that the proposed ranking model adaptation algorithm is capable of adapting to new domains.

Index Terms – Ranking, ranking adaptation, domain specific search, information retrieval