

A Comparative Study of Approaches in User-Centred Health Information Retrieval

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Abstract : In this paper, we survey various user-centered or context-based biomedical health information retrieval systems. We present and discuss the performance of systems submitted in CLEF eHealth 2014 Task 3 for this purpose. We classify and focus on comparing the two most prevalent retrieval models in biomedical information retrieval namely: Language Model (LM) and Vector Space Model (VSM). We also report on the effectiveness of using external medical resources and ontologies like MeSH, Metamap, UMLS, etc. We observed that the LM based retrieval systems outperform VSM based systems on various fronts. From the results we conclude that the state-of-art system scores for MAP was 0.4146, P@10 was 0.7560 and NDCG@10 was 0.7445, respectively. All of these score were reported by systems built on language modeling approaches.

Keywords : clinical document retrieval, concept-based information retrieval, query expansion, language models, vector space models

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