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| Title | Recommending Research Articles: A Multi-Level Chronological Learning-Based Approach using Unsupervised Keyphrase Extraction and Lexical Similarity Calculation. | | |
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| Abstract |  |
| A research article recommendation approach aims to recommend appropriate research articles to analogous researchers to help them better grasp a new topic in a particular research area. Due to the accessibility of research articles on the web, it is tedious to recommend a relevant article to a researcher who strives to understand a particular article. Most of the existing approaches for recommending research articles are metadata-based, citation-based, bibliographic coupling-based, content-based, and collaborative filtering-based. They require a large amount of data and do not recommend reference articles to the researcher who wants to understand a particular article going through the reference articles of that particular article. Therefore, an approach that can recommend reference articles for a given article is needed. In this paper, a new multi-level chronological learning-based approach is proposed for recommending research articles to understand the topics/concepts of an article in detail. The proposed method utilizes the TeKET keyphrase extraction technique, among other unsupervised techniques, which performs better in extracting keyphrases from the articles. Cosine and Jaccard similarity measures are employed to calculate the similarity between the parent article and its reference articles using the extracted keyphrases. The cosine similarity measure outperforms the Jaccard similarity measure for finding and recommending relevant articles to understand a particular article. The performance of the recommendation approach seems satisfactory, with an NDCG value of 0.87. The proposed approach can play an essential role alongside other existing approaches to recommend research articles. | |