

Search Result Diversification via Filling up Multiple Knapsacks

ウ カイトウ

講演者: 于海濤氏 *Assistant Prof. Haitao Yu*

(筑波大学 図書館情報メディア系 助教)



日時: 2014年12月19日(金) 11:00 - 12:00

場所: 筑波大学 筑波キャンパス 春日エリア
情報メディアユニオン3階 共同研究会議室1

Result diversification is a topic of great value for enhancing user experience in many fields, such as web search and recommender systems. Many existing methods generate a diversified result in a sequential manner, but they work well only if the preceding choices are optimal or close to the optimal solution. Moreover, a manually tuned parameter (say, λ) is often required to trade off relevance and diversity. This makes it difficult to know whether the failures are caused by the optimization criterion or the setting of λ . In context of web search, we formulate the result diversification task as a 0-1 multiple subtopic knapsack problem (MSKP), where a subset of documents are optimally chosen like filling up multiple subtopic knapsacks. This formulation yields no trade-off parameters to be specified beforehand. Solving the 0-1 MSKP is NP-hard, we treat the optimization of 0-1 MSKP using a graphical model over latent binary variables as a maximum posterior inference problem, and tackle it with the max-sum belief propagation algorithm.

主催: 筑波大学 知的コミュニティ基盤研究センター

URL: <http://www.kc.tsukuba.ac.jp/index.html>

お問い合わせ: メール kc-office@ml.cc.tsukuba.ac.jp

電話 029-859-1524(学内:内線81524)

講演は英語で行われます。学生、教員、一般、学内外を問わず、どなたでもご自由にご参加ください。

参加費無料、参加申込不要