Subtopic mining for supporting users to find out more focused retrieved results
Evaluation of external resource for subtopic mining candidates: query analysis results and Wikipedia

Selection of subtopic candidates from external resource
- Wikipedia: Yahoo! abstract and disambiguation
- Query analysis results: Query suggest, co-topic and co-click (provided by organizers)
- Keywords that characterize each topic of the topic model (LDA)

Evaluation of appropriateness of the subtopic candidates
- Use topic model for check diversity
- Check representativeness of the candidates by using number of articles in the initial retrieval results

Vertical intent analysis
- Subtopic keyword base
- Analysis of the type of retrieved pages

Keyword base estimation
- Comparing subtopic candidate and original query to keywords
- Image is verified existence of original keyword in Alt of img tag

Discussion
- Candidates from query analysis is a good resource for subtopic candidate generation, but ones from Wikipedia is not good, even though those candidates seems to be reasonable subtopic
- It may be necessary to take into account the representativeness of the subtopic.