

When Experts Agree: Using Non-Affiliated Experts to Rank Popular Topics

Reviewed by Lan Nie

This paper proposed a novel ranking scheme (hilltop) for popular topic that placed the most authoritative pages on the query topic at the top of the ranking.

The hilltop algorithm first computed a list of experts most relevant on the query topic, and then identified the targets through relevant links from these experts. The targets were ranked by the number, quality and relevance of non-affiliated experts that point to them. Thus, the score of the target page reflected the collective opinion of the best independent experts on the query topic.

Good points are

- (1) In computing the authority of a target page, only good and independent parents (experts) are taken into account instead of all parents.
- (2) Combine content analysis and link analysis together.

Some weak points are listed below

- (1) A target page will inherit the same score from its expert parent either the title or the anchor text of the parent page contains the query term. However, the influence of the anchor text should be stronger than the title, supposing the link is far away from the title. So I think the inherited score should be weighted by the distance between the out-link to the target page and its qualified key phrases.
- (2) When calculating the score of a target page, only contents of its expert parents are taken into account, its own content is ignored.
- (3) Exact matching of query terms will exclude some good results, in case none of its parents' key phrases contain the query.
- (4) The rule to detect host affiliation is not enough to locate all affiliated hosts (link Spam). And, it doesn't work for identifying textual spam.
- (5) The first experiment is not enough to show the recall performance of a ranking algorithm.