

Top Valuable Keywords: Google VS. Yahoo

While we're trying to get some hits about valuable keywords, the first question should be whether there are some rules behind.

Guys from Yahoo published a paper titled as "How much is a Keyword worth" [Sarukkai 2005]. That paper can be referenced to explain about why valuable keywords are not correlated with popular-search keywords at all, considering that 'positive feedback' is the key factor to evaluate keywords. Google, however, referring to 'search by Google', reveals no opinion on the issue.

Anyway, Google or Yahoo are not the parts who can decide the values of keywords, the actual bid of a certain keyword is only generated by a real auction. Intuitively, if all advertisers hold similar strategies to bid for keywords, the same keywords bid on through Google and Yahoo should share a kind of same 'normalized' values. Is it what happened for actual auctions?

The following experiment is designed to compare pricing of same set of keywords between Google and Yahoo.

- 1) The original data are 'Highest Paying Search Terms from Google', collected from <http://www.cwire.org/highest-paying-search-terms/>, top-130 keywords are picked out, with all prices higher than 40 CAD (prices are converted to USD later). This list was updated on September 22, 2006.
- 2) With the help of overture tool provided by Kuzman, these 130 keywords are submitted to overture 'view bids', and only 76 of them are bid on through Yahoo also.
- 3) Deleting some repeated items by mistake; prices of 73 keywords which are both bid on through Google and Yahoo are collected, and then computed for correlation in Matlab.

The result is a kind of surprising. Although the most valuable keyword is 'austin dwi attorney' in both Google and Yahoo, the correlation between two groups of prices is only 0.0615. And, with a closer look into the data set, we could tell out by 'eyes' that

the valuable keywords in Google are indeed not guaranteed to be valuable keywords in Yahoo at all.

A quick conclusion is that advertisers share no common strategies for bidding on keywords, and there are not any persuasive proposals by far for advisers to follow while bidding. I suspect, by intuition, there is any rule to evaluate the value of keywords, at least for now, since it is still not an open and mature game of the sponsored auction market.

By the way, the highest price in Google is 57.62 USD, and 16.01 USD in Yahoo, the lowest price in list (73 items included) is 39.37 USD in Google and 0.11 USD in Yahoo. We should carefully conclude that Google are much more competitive in the sponsored auction market than Yahoo, since the prices shown here are not directly related the final profit, but this is still interesting to have a further look at the set of advertisers participating in those bids. Moreover, further data analysis may give more hints, for example, analysis of the 64 keywords, which are bid on in Google but not in Yahoo, might come from the different recommendation criteria provided by Google and Yahoo.

[Sarukkai 2005]: Ramesh R. Sarukkai, *How much is a keyword worth?* Special interest tracks and posters of the 14th international conference on World Wide Web, 890-891, 2005

P.S. the processed data file is attached as well, in which the first column is of the 'keywords', the second is of the prices from Google, and the third is of the prices from Yahoo, 73 rows are included

(Main process of this experiment is done by a python script with .dat output into Matlab)