An Open Source Advertisement System

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Abstract : An online advertisement system and its implementation for the Yioop open source search engine are presented. This system supports both selling advertisements and displaying them within search results. The selling of advertisements is done using a system to auction off daily impressions for keyword searches. This is an open, ascending price auction system in which all accepted bids will receive a fraction of the auctioned day’s impressions. New bids in our system are required to be at least one half of the sum of all previous bids ensuring the number of accepted bids is logarithmic in the total ad spend on a keyword for a day. The mechanics of creating an advertisement, attaching keywords to it, and adding it to an advertisement inventory are described. The algorithm used to go from accepted bids for a keyword to which ads are displayed at search time is also presented. We discuss properties of our system and compare it to existing auction systems and systems for selling online advertisements.