

The Components and Impact of Sponsored Search

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Sponsored search advertising has dramatically impacted search engines, consumers, and organizations, and will continue to do so in the foreseeable future.

According to market-research firm IDC, Internet marketing is projected to grow 15-20 percent through 2011, with sponsored search advertising the dominant model (www.idc.com/getdoc.jsp?containerId=prUS21304208). In sponsored search—also known as paid search, keyword advertising, pay-per-click (PPC) advertising, and search advertising—advertisers pay search engines for traffic from the search engine to their websites via link-based ads that search engines display in response to user queries.

Unlike many online advertising models that preschedule online ads such as banners, buttons, and sky-scrapers on select webpages and charge based on the number of ads served, sponsored search dynamically places small ads based on keywords that reflect user interests and charges based on user clicks. For example, a sponsored-search ad or link in response to the query “Florida golfing,” in which “golf” is the keyword, might be:

[Florida Golf](#)

\$35 for 18 holes plus a cart at
 Orlando Resort’s **golf** courses
OrlandoFloridaResort.com

Sponsored search provides the revenue base for major search engines such as Google, Yahoo!, Microsoft Live, and Ask, as well as many online businesses that rely on traffic driven by PPC platforms. For example, more than 90 percent of the \$21.8 billion Google earned in 2008 came from sponsored search (http://investor.google.com/fin_data.html).

SPONSORED SEARCH COMPONENTS

Introduced in 1998 by Overture (later acquired by Yahoo!), the sponsored search model impacts three interrelated components: search engines, consumers, and organizations.

Search engines

Sponsored search provides the revenue stream to support the massive and expensive infrastructure

current search engines need to crawl billions of webpages, index these documents (including text, images, videos, newspapers, blogs, and audio files), accept millions of Web queries per day, and present billions of links per week.

Without sponsored search, it is doubtful that the major search engines could finance anything close to their current infrastructures to provide these services. Keyword advertising is critical as a revenue source for the major search engines and appears to be their major business model for the foreseeable future.

Consumers

Consumers often use search engines to collect information and evaluate alternative products and services. Market-research firm TNS reports that an estimated 81 percent of Internet users worldwide and 89 percent of Internet users in the US rely on search engines to locate websites (www.emarketer.com/Article.aspx?R=1006885). Sponsored search supports many free

search engine services—including currency conversion, flight time tracking, desktop searching, and language translation—that have rapidly become essential to many online consumers.

Organizations

Sponsored search is vital for many profit- and not-for-profit organizations to attract the interest of searchers and reach potential customers through online advertising. By leveraging sponsored-search platforms, small-to-medium-size enterprises can effectively compete in the online global marketplace. Sponsored search provides unique opportunities to SMEs at little to no increased transaction costs.

Commonly used by mail-order companies, telemarketers, and catalogers, direct marketing targets individual customers to sell directly to them. Due to the growing amount of digital data at the individual consumer level and increasingly sophisticated modeling, direct marketers continue to refine which consumers they target.

Unlike traditional direct marketing, which segments customers based on demographics and past behavior, sponsored search relies on dynamic consumer interests and current consumer needs to reach potential customers. Further, keyword advertising provides real-time results and lets direct marketers change advertisements immediately.

To address the growing interest in sponsored search, the Direct Marketing Association now offers a Search Engine Marketing Certification (www.the-dma.org/seminars/searchcertification) aimed at professionals in the industry.

IMPACT OF SPONSORED SEARCH

The impact of sponsored search on advertising is groundbreaking due to

an array of metrics that measure the effectiveness of advertising dollars.

Advertising helps inform and persuade potential customers about a particular brand, good, or service, but results have often been difficult to measure. This problem is epitomized in a saying attributed to John Wanamaker, the father of modern advertising: “I know that half of my advertising budget is wasted, but I’m not sure which half.”

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Advertising in media such as television, radio, magazines, and newspapers traditionally relies on impressions to reach a certain demographic, geographic, or psychographic target group, an approach that calls for running ads as frequently as possible. However, it is difficult to precisely determine the number of customers that actually see or hear the ad or change their marketplace behavior as a result of it, and thus to measure the return on investment.

This isn’t the case with sponsored search, which presents targeted ads as an integral part of a potential customer’s search experience and impacts several stages of the search process, including information search and alternative evaluation.

Sponsored search also initially relied on impressions, but it quickly evolved into a more sophisticated model with multiple layers of measurement. For example, advertisers can accurately measure customer awareness based on whether a user clicks on an ad.

The ad *click-through rate* (CTR) or ratio of clicks to impressions became the industry standard for gauging an advertiser campaign, and *cost per click* (CPC) became the basis for pricing.

One of the main advantages of CPC is that the advertiser can easily audit the number of clicks. Using an online auction process, multiple advertisers bid on potential terms, which sets the eventual CPC.

Another metric in the sponsored-search model is *cost per action* (CPA), in which the advertiser only pays if the customer clicks on the ad and follows a given call to action such as purchasing a product.

SPONSORED-SEARCH TECHNOLOGIES

The technologies underlying sponsored-search services are complex. The primary goal of these technologies is to get relevant ads in front of interested consumers. Therefore, sponsored-search platforms provide mechanisms for businesses to develop ads and link them to query keywords that potential customers submit to the search engine.

This isn’t as simple as it sounds given that most Web queries are only one or two terms, and terms can have multiple derivations and meanings.

Targeted ads

Modern sponsored-search platforms provide means for advertisers to tailor their campaigns across myriad variations. These include keyword matching (broad, exact, phrase, or negative keywords), keyword generation that automatically produces possible alternate terms to trigger the ad, and dynamic ad creation that automatically creates ads targeted to specific queries.

In addition to targeting ads based on user information searches, organizations can refine target campaigns based on traditional demographics. Sponsored-search platforms include

➔ SPONSORED SEARCH RESOURCES

Below are additional learning materials from a variety of perspectives and sources for the interested reader.

- Google AdWords Learning Center; www.google.com/adwords/learningcenter/index.html.
- B.J. Jansen and T. Mullen, "Sponsored Search: An Overview of the Concept, History, and Technology," *Int'l J. Electronic Business*, vol. 6, no. 2, 2008, pp. 114-131.
- K.B. Jones, *Search Engine Optimization: Your Visual Blueprint for Effective Internet Marketing*, Wiley, 2008.
- Microsoft Advertising; <http://advertising.microsoft.com/home/home>.
- D. Park, *Full Disclosure: Cracking the Google Online Marketing Challenge*, 2009; www.gomchabook.com.
- Search Engine Land; <http://searchengineland.com>.
- Search Engine Watch; <http://searchenginewatch.com>.
- Yahoo! Search Marketing; <http://help.yahoo.com/l/us/yahoo/ysm/sps>

temporal targeting that displays an ad only at certain times of the day or on certain days, *geotargeting* that displays an ad only to users within a certain location, and *ad reach* to control where the ad appears on the Web.

Online auctions

Despite or perhaps because of these sponsored-search technologies, organizations rarely have an ad market completely to themselves. Typically, multiple advertisers desire the same set of keywords. To determine whose ad is shown and where the ad appears on the search engine results page, sponsored-search platforms use online auctions in which advertisers bid on the key terms and phrases to appear in their ads. For example, in the sample ad at the beginning of the article, OrlandoFloridaResort.com bid might bid 55 cents on the keyword "golf."

The more demand there is for a particular key term, the higher the prices for top placement on the results page. In a CPC model, the advertiser only pays when a potential customer clicks on an ad that the search engine displays.

The original Overture scheme ranked ads based on bid. However, search engine companies have an inherent interest in serving relevant

content to searchers, and this includes ads. Therefore, most major sponsored-search platforms now rank an ad based on both the price that an advertiser will pay for it (the bid) and a relevance score based on the ad's CTR.

Keyword-advertising platforms use historical data generated from multiple ad displays to calculate the relevance score. If an ad is deemed less relevant to a particular keyword, it will drop in ranking regardless of the bid price. In reality, the advertiser also seeks to display relevant ads, as clicks by users who aren't potential customers incur a cost with little prospective benefit of a purchase.

Management tools

Finally, organizations have an array of management tools such as account organization software, A/B testing to automatically assess ad effectiveness, budget management tools to control advertising expenditures, and campaign analytics to gauge progress to campaign goals. These tools make it possible to manage and measure the effectiveness of advertising efforts in ways that were impossible prior to the advent of sponsored search. Most permit real-time campaign management for both reporting results and changing ads.

Search engine companies are also pushing into traditional advertising areas with innovations that link sponsored-search services to advertising in e-mail, magazines, newspapers, radio, telephony, and television.

EDUCATIONAL OPPORTUNITIES

There are also several opportunities in this area to expose college students to sponsored search technologies and demonstrate the interrelationships among search engines, organizations, and consumers.

Instructors can incorporate the Yahoo! Search Marketing platform (<http://help.yahoo.com/l/us/yahoo/ysm/sps>) into course projects, while Microsoft and Google each sponsor competitions open to students at all levels. The Microsoft Advertising Digital Challenge (MADC; <http://ms-digital-challenge-2009.web.officelive.com/default.aspx>) embraces the entire online marketing space, while the Google Online Marketing Challenge (GOMCHA; www.google.com/onlinechallenge) focuses on sponsored-search technologies.


In GOMCHA, groups of about five students participate in a keyword-advertising competition that narrows down the initial number of teams to 10, including one global winner and three regional winners (Americas, Europe-Middle East-Africa, and Asia-Pacific). The first GOMCHA in 2008 included more than 8,000 students from 300 universities in 47 countries across six continents; for 2009, it has attracted 14,000 students from 500 universities in 60 countries.

GOMCHA is unique in that students engage with real clients, use real money, and leverage a real, working, sponsored search information technology platform.

Sponsored search has dramatically influenced how people interact with the Web. It has funded the Web searching infra-

structure that users have grown accustomed to and provided unparalleled reach, frequency, and control of marketing efforts and advertising campaigns.

The technology underlying sponsored-search platforms—including online auctions, geotargeting, and keyword volume prediction—is extremely complex yet accessible via intuitive system interfaces. Efforts such as MADC and GOMCHA are integrating the real-world aspects of sponsored search with higher education.

As the Web evolves, all indications are that sponsored search will continue to have a major impact on search engines, consumers, and organizations. For more information and learning materials from a variety of perspectives, see the “Sponsored Search Resources” sidebar. 

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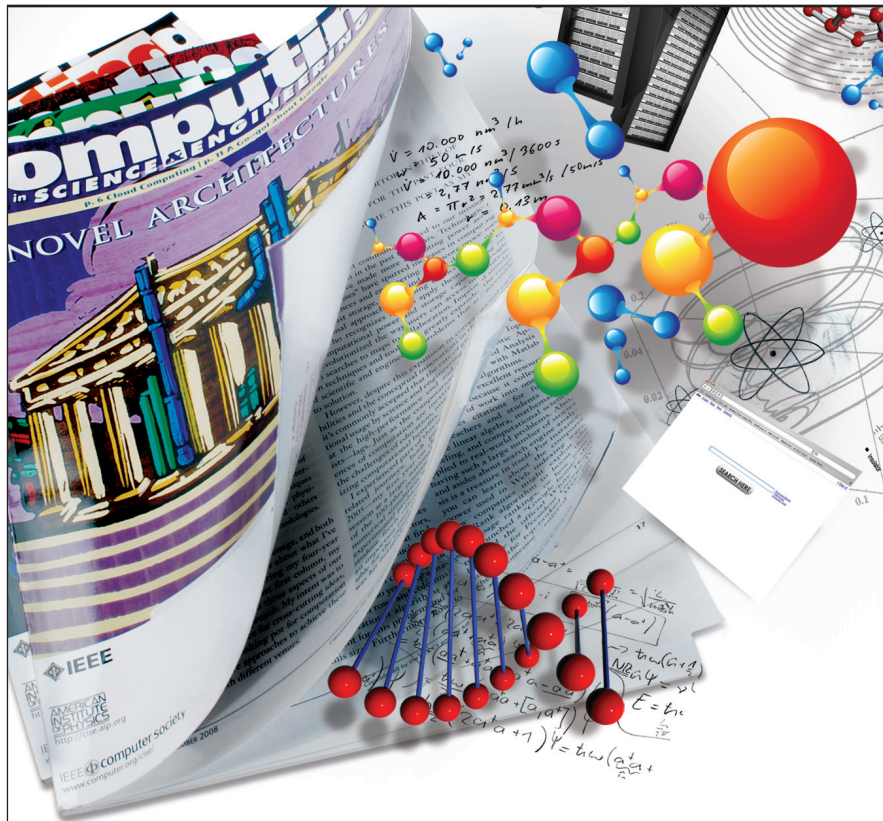
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