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Search advertising placement strategy: Exploring the efficacy of the conventional wisdom

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ABSTRACT

Search advertising is one of the most important forms of electronic commerce. While click-through rates are considered a key measure of search advertising effectiveness by search providers, brand attention can also be a valuable objective. Our paper reports on an experiment that investigated how search advertisement placement affected search users' brand recall and recognition. The results showed that semantically associated search ads generated significantly higher levels of brand attention than contextually associated ones. Significant interaction effects were found among search ad position, keyword association, and search result quality. Implications for decision makers are discussed.

1. Introduction

Search engines play a major role in many companies' Internet marketing strategies [7,16]. The popularity of search engines as a gateway for accessing Internet resources has given rise to an important form of electronic commerce: search advertising. Search advertising allows advertisers to target their ads with search keywords, and display them alongside search results. A report by PricewaterhouseCoopers stated that search advertising revenue in the US reached $5.1 billion in the first half of 2009 and represented 47% of all Internet advertising revenues, while banner ads generated $2.4 billion in the same period. Search advertising revenue growth may be partially attributable to the revolutionary auction-based pay-for-click advertising model. Despite its importance, search advertising has not received as much attention in research as other forms of advertising [5].

Search advertising differs from banner advertising in two critical aspects. First, most search ads are text-based, consisting of a title, a description, and a link to a landing page. Advertisers have little latitude in controlling design elements such as color, image, and animation commonly used in banner advertising to attract users' attention, or make their ads stand out. Second, unlike banner ads that may be displayed on any part of a web page, search ads are displayed together with competing advertisements on either the top or right-hand side of the search results. Although major search engines such as Google, Yahoo!, and Microsoft use different algorithms for ad placement, the search ad's position is determined by the keyword's popularity and how much an advertiser is willing to pay when the ad is clicked. Given these constraints, advertisers face two crucial decisions in planning a search advertising campaign:

(1) with what keywords should the search ad be associated, and
(2) how much should we bid for these keywords.

The first decision determines the search result pages on which the ad will be presented, while the second determines the page location at which the ad will appear.

As a service to their subscribers, search-advertising programs offer advice on where and how search ads should be placed. For instance, Google recommends that one should only bid on keywords that are "relevant" to the products or services to be advertised. It provides a keyword selection tool which generates "relevant" keywords based on a search term. It also suggests that top-positioned ads will produce better results than side-positioned

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ads by charging higher prices for top-positioned ads. Since Google and other search engines have access to proprietary information about how users interact with and respond to search ads, few have questioned the validity and applicability of this "conventional wisdom".

Given the pay-for-click model employed by search advertising programs, it is reasonable to assume that their advice is geared toward increasing the click-through rate, which is defined as the number of clicks divided by the total number of times an ad is displayed. While click-through is an important measure of advertising effectiveness, brand awareness and attitude toward the ad are also valuable measures [13]. Consequently, an important research consideration is whether advertisers should pursue marketing campaign objectives other than those driven by the desire to maximize click-throughs.

One may argue that a click-through maximizing strategy should also achieve brand awareness objectives, because attention to a search ad is a prerequisite to click-through; but it seems plausible that search users may notice an ad and form positive impressions about the brand without clicking. With a pay-for-click model, companies may be able to maximize the value of their search advertising budgets if they are able to generate brand awareness using a minimum number of click-throughs. Furthermore, companies can avoid bidding-wars by exploring alternative ad placement strategies.

Our research therefore focused on the impact of a search ad on brand attention, which was defined as a search user's recall and recognition of a brand displayed in a search ad. Specifically, we examined how the placement of a search ad could affect brand recall and recognition by a search-user through the theoretical lens of the limited capacity model of attention and the theories of search behavior. We investigated three variables related to search ad recall and recognition: ad positioning, search ad–keyword association, and search result quality. Here we report on the results of an experiment conducted to assess the effects of these variables on search users' recall and recognition of search ads.

2. Literature review

2.1. Online advertising effectiveness

Building on advertising research, scholars have endeavored to understand the differences between online and traditional advertising media. An issue that has received considerable attention is how to measure online advertising effectiveness. Since interactivity is a key characteristic of the online medium, it has been argued that the web should be viewed primarily as a direct marketing tool. A banner ad on a website, for example, is similar to a coupon in a newspaper: its effectiveness is often measured by its redemption rate. Click-through, as the online analog to coupon redemption, has been regarded as the most important measure of online advertisement effectiveness. This view is supported by the practice of companies paying for advertisement clicks. In a study of online advertising practices, the majority of the media directors reported using only transaction-based measures such as click-through rates, registrations, and purchases to evaluate online advertising effectiveness [15].

Studies have investigated the effects of various banner formats and presentations on click-through. Chandon et al. [2] found that large-sized, animated, and targeted banners generated higher click-through rates. Lohtia et al. [10] investigated the impact of interactivity, color, and animation and found that the effects of content and design elements of banner advertisements were different for B2B and B2C web sites. Color was also thought to make an email message more emotionally evocative and thus increase the chance of an advertisement being clicked. From the information overload perspective, Wu and Yuan [19] studied how different types of display color and highlighting configurations could affect information search performance.

Other researchers, however, have suggested that online advertising can also impact brand awareness, attitude, and purchase intentions even in the absence of click-through. Yoo [20] argued that exposure to web advertising can lead to both directed and non-directed brand attention. While directed brand attention can lead to the conscious processing of an advertisement and possibly result in a click-through, non-directed brand attention can invoke subconscious processing which may affect implicit memory and attitudes toward the brand. Burns and Lutz [1] compared six different online ad formats and concluded that attitude toward online advertising format was directly related to attitude toward the advertisement. Yoon and Lee [21] compared the effects of clicked and non-clicked banner ads on brand awareness, brand attitudes, and implicit memory, finding that exposure effects produced by non-clicked banner ads were as strong as those produced by clicked banner ads. Therefore, by focusing on click-through rates alone, advertisers are probably undervaluing the effects of online advertising, limiting the applications of online advertising.

Although researchers have recognized the need to address non-transactional measures of online advertising effectiveness, most existing studies have focused on banner ads. There is a gap in our understanding of how search ads affect non-transactional measures of online effectiveness, such as brand attention. For our study, we defined brand attention as the ability of search users to recall and recognize advertised brands from search ads. Brand attention has been widely used in the traditional as well as online advertising literature as a measure of advertising effectiveness.

2.2. Limited capacity model of attention

The limited capacity model of attention, developed from cognitive psychology, is a general model for investigating how people process television and other types of mediated messages; in it there are two fundamental assumptions:

1. Information processing is one of the most frequent and important tasks people perform; it consists of three sub-processes: encoding (where people perceive stimuli and develop a mental representation of the information), storage (which connects the new information representation to that stored in memory), and retrieval (which manages and activates stored information representations in response to needs of the other two sub-processes).
2. People have limited ability for processing information [9] as there is a limited set of mental or cognitive resources available at any given time.

Building on these assumptions, the model suggests that cognitive resources are allocated to competing information processing tasks in the sub-processes through controlled (intentional) and automatic (unintentional) mechanisms. The controlled mechanism involves people consciously allocating cognitive resources to specific tasks and is employed when people have clear goals. For example, when a TV quiz show viewer tries to come up with the answer before it is revealed, he or she consciously concentrates cognitive resources to retrieving relevant information. On the other hand, the automatic mechanism assigns cognitive resources unconsciously in response to some stimulus; for instance, the TV viewer may suddenly notice a moving car in the background.

Stimuli that may invoke the automatic mechanism are believed to fall into two categories: those activated by information or