Online Advertising Fraud

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INTRODUCTION

This article discusses illegitimate activities associated with online promotion activities, specifically those related to *click-through fraud*. Whether one is starting a new brick-and-mortar restaurant, managing a charity organization, or building an online information portal, prospective customers, donors, or users must be informed, persuaded, and reminded of the features and benefits that are offered by the business. Online promotion has some unique and advantageous characteristics over traditional promotion media, but those characteristics create a potential for abuse. Click-through fraud, more commonly termed *click fraud*, is a relatively recent and evolving problem that currently has few deterrents. This article outlines why and how click fraud is done, and suggests some measures that can be taken to at least recognize the potential for click fraud.

The interactive nature of the Web would seem to make it an ideal advertising medium with a potential to completely eliminate advertising *waste*. Newspaper ads for, say, a pet store reach many people who do not have pets: the number of people in this category is termed as *waste*. With online advertising, it is possible—in an ideal world—to place an ad and to pay for the ad space only when a prospective customer shows interest by clicking on a linked advertisement that transports him/her to the advertiser's online place of business. This *pay-per-click* (PPC) pricing model would seem to completely eliminate advertising waste.

Unfortunately, advertisers, ad hosts, and fraudsters are discovering that the PPC model is open to abuse. Those who click on an online advertisement could include:

- Prospective customers who actually have an interest in the product
- Competitors who want to generate high advertising costs for the advertiser
- Ad hosts who earn a commission from displaying pay-per-click advertising

The latter two categories consist of entities that have absolutely no interest in the advertiser's offerings and absolutely no intention of ever performing any *target actions* such as purchasing a product. These fraudulent *click-throughs* or *debiting clicks* could turn an ad campaign from one that has almost no waste into one that has almost 100% waste. In a survey of advertisers, the Search Engine Marketing Professional Organization found that a quarter of respondents have tracked fraud as a problem (SEMPO, 2004).

BACKGROUND

Contextual advertising is one way of increasing the likelihood that an ad is reaching people in its target audience. In Web-based advertising, contextual advertising would include banner ads or search engine links that are displayed on a page that has a context that is related to the ad; people on that page are already searching for or browsing through ad-related content. Better reaching the target audience in this way should result in less waste and, in the case of online advertising, in a higher *click-through rate* (cf. Newcomb, 2003; Smith, 2004; Sullivan, 2004).

Search engines engage in contextual advertising through the *pay-per-click* (PPC) or *cost-per-click* (CPC) pricing model. When someone does a search, many search engines not only return links to pages that have been indexed on the search terms, but also return *sponsored links* to pages that the advertiser has paid to have listed at high ranking (cf., Brendler, 2005). When someone clicks on a sponsored link in the PPC model, this *click-through* is a *debiting click* that subtracts from the advertiser's prepaid advertising click budget. The price per click is set by a bidding process, whereby the advertiser who bids to pay the most for particular keywords will be ranked the highest in the list of *sponsored links* returned by the search engine (cf., Alchemist Media, n.d.). The Fathom Online Keyword Price Index shows that in March 2005, advertisers in the consumer retail industry were paying an average of $0.51 per click, while advertisers in the mortgage industry were paying an average of $5.39 per click (Fathom, 2005). Bids on some keywords can reach into the fifty-dollar range (cf., Associated Press, 2005a; Bruce Clay, n.d.).

Both advertisers and ad hosts have experienced fraud under the PPC advertising model, but legal action is relatively new at the time of this writing. In February 2005, the gift shop Lane's Gifts and Collectables filed suit against Google, Yahoo, and others for allegedly billing for inflated click-throughs for PPC advertising, charging that many click-throughs were not generated by *bone fide* potential customers (Associated Press, 2005b). But just a few months earlier, Google had itself filed one of the first click fraud lawsuits against one of its advertising affiliates who displayed Google-generated sponsored links on its own Web site. The affiliate, Auctions Expert, contracted with Google to display PPC links, but then allegedly clicked on those links itself in order to generate a commission (Olsen, 2004). In March 2004, Michael Bradley was arrested by the U.S. Secret Service in association with his Google Clique software that he claimed could be used to generate false clicks for Google affiliates (Nariane, 2004).

ADVERTISING CLICK FRAUD

Before looking at why and how click fraud is done, we need an understanding of some basic cost or pricing methods used in online advertising.

Pricing Models

Traditional Model: CPM and Pay-Per-Impression Advertising

A traditional measure of advertising cost for print and broadcast media has been *CPM*, or "cost-per-thousand." In traditional media, this is the cost of reaching 1,000 individuals or households with the advertising message in a given medium. With online advertising, CPM tends to be associated with the cost of 1,000 *impressions*, or actual exposures to a particular advertisement. In *pay-per-impression* advertising, the advertiser pays for some predetermined number of ad impressions. When this impression budget is exhausted, the ad is removed from the display list (cf., Internet Retailer, 2005).

Performance Model: Cost-Per-Transaction or Cost-Per-Action (CPT, CPA)

Although not often discussed and apparently not often used in online promotion, pricing that is based on the ultimate visitor's *target action* (e.g., making a purchase) could be done. The terms *cost-per-action* and *cost-per-acquisition* (CPA) are sometimes used to describe this idea (cf., Gold, 2005; Stevens, 2001; Think Metrics, n.d.). Mand (1998) discussed a model that has been called *cost-per-sale*, *cost-per-trade*, and *cost-per-transaction* advertising (CPT). This equates to a sales commission in traditional media.

Bid-for-Placement Model: Pay-Per-Click or Cost-Per-Click Advertising (PPC, CPC)

In *pay-per-click* (PPC) advertising, also known as *cost-per-click* (CPC) advertising, the advertiser pays a fee for each time someone clicks an advertisement that links to the advertiser's Web site. The advertiser pays for a predetermined number of clicks at a price that is often set by being the highest bidder in an auction. The advertisement host (e.g., a search engine) removes the ad from the display list when this click budget is exhausted. The advertisement host might also remove the ad from the display if the *clicks-to-impressions* (CTI) ratio or *click-through rate* (CTR) falls below some predetermined limit (because it is failing to generate sufficient revenues.)

Click Fraud Classification

Fraud can exist in all three types of pricing models, but click fraud is probably the most problematic at this time because the PPC model has become so widely used in online advertising. Many types of online advertising fraud are motivated by two basic objectives. One is associated with an attempt to either hurt a competitor or to force the competitor to decrease its advertising. Another is to profit from hosting advertising messages. The first type could be classified as *competitive fraud* and the second as *affiliate fraud* or *network fraud* (cf., Claburn, 2005; Lee 2005; Stricchiola, 2004).

Competitive Fraud

The objective of competitive fraud is often to hurt a competitor or to get a competitor to quit advertising. For example, one competitor can repeatedly click on another competitor's PPC ad with the intent to inflate the competitor's advertising cost rather than to obtain information about the advertised product. The objective of deliberately imposing this cost on the competitor could be to:

- drain the competitor's advertising budget in an effort to decrease the competitor's profitability.
- cause the competitor to see less value in bidding up the price to be at the top of the search engine list. This thereby lowers the prices for other competitors to bid for top listing.
- cause the competitor to quit advertising or to quit doing as much advertising because it either cannot budget for the volume of clicks or sees PPC advertising as providing a poor return on investment. If the competitor bows out of the top spot, it is now open for the remaining competitors at lower prices.