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December 03, 2018

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Recommended Citation

Toksoz, Tuna and Dukellis, John, "Automated online product ads", Technical Disclosure Commons, (December 03, 2018)
https://www.tdcommons.org/dpubs_series/1742

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Automated online product ads

ABSTRACT

Online advertisements for products are typically created manually and integrated by the product seller into the ad network. The initiative for ad creation and integration generally rests with the product seller. There is some opacity in the pricing of such ads, resulting in periods when ads are mispriced.

This disclosure provides techniques that enable a third-party ad affiliate, e.g., not necessarily a product seller, to automatically generate product ads and price them based on the revenue they generate. For example, an auto-generated ad is priced based on a comparison between the cost of placing the ad and the referral fee received from product seller upon conversion of ad to sale.

KEYWORDS

Online ads, product listing ads, cost per click, cost per mille, CPC, CPM, ad auction, automated ads, ad referral, ad affiliate, ad click, click-thru rate, conversion ratio, impressions, CTR, CVR

BACKGROUND

Online advertisements for products are typically created manually and integrated by the product seller into the ad network. The initiative for ad creation and integration generally rests with the product seller, who acts as advertiser. There is some opacity in the pricing of such ads, e.g., the price of an ad is not typically tied to product sales arising from it.

While product-listing ads are priced per click, there is not an automated system that enables an ad network or third-party ad affiliate to value an ad based on real-time product purchases.

DESCRIPTION

This disclosure presents techniques that enable a third-party ad affiliate, e.g., not necessarily a product seller, to automatically generate product ads and price them based on the revenue they generate.
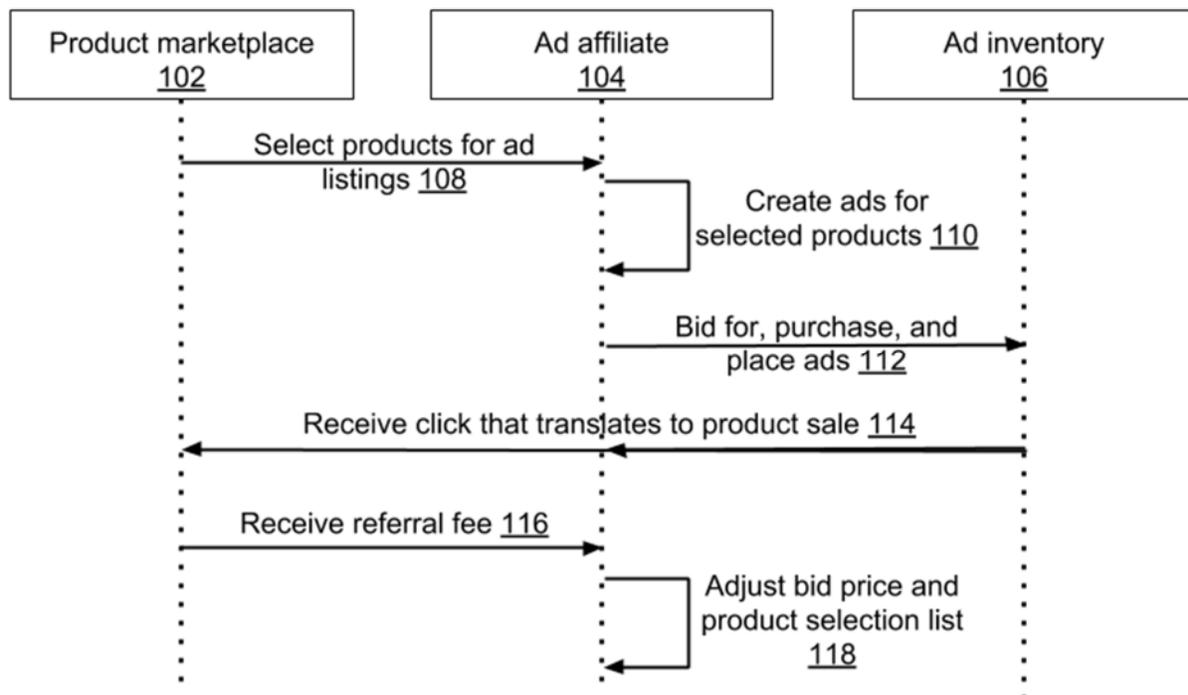

Fig. 1: Automated ad creation and pricing by ad affiliate

Fig. 1 illustrates automated ad creation and pricing by ad affiliate, per techniques of this disclosure. An ad affiliate (104), also known as an ad referrer, searches product marketplace (102) for suitable products for which to place ads. The ad affiliate can be, in certain circumstances, an ad network. The product marketplace comprises, e.g., e-commerce sites, online vendors of products, etc. The ad affiliate selects products for ad listings (108). The product selections can be based upon, e.g., value and demand for a product. The ad affiliate automatically creates ads for the selected products (110). The ad affiliate bids for, purchases, and places ads (112) in the ad inventory. The ad inventory (106) includes, e.g., online publishers, social media, search engine results pages, etc. If a viewer of an ad clicks on the ad, then the ad

affiliate receives the click and refers the ad-viewer to the appropriate vendor within the marketplace (114). If a product purchase arises out of the ad click, then vendor pays to the affiliate a referral fee (116). Based on the received referral fee, the fraction of ad-impressions that got converted to sales, etc., the ad affiliate adjusts its list of product selections and ad bid prices (118). For example, the ad affiliate may continue purchasing and displaying ads whose cost is less than the referral fee that they generate. Conversely, the ad affiliate may discontinue ads for products whose referral fee is less than the cost of ad placement. With the product listings and bid prices adjusted, the ad affiliate continues to automatically create and place ads.

An example formula for setting an ad's bid price is:

```
bid price = impressions × CTR × CVR × cost of product
            × affiliate's revenue share,
```
where

`impressions` is the number of ad impressions;

`CTR` is the click-through rate, e.g., the fraction of impressions that result in clicks;

`CVR` is the conversion ratio, e.g., the fraction of clicks that result in product sales; and

`cost of product` and `affiliate's revenue share` are self-explanatory.

In this manner the techniques of this disclosure enable a third-party ad referrer or affiliate to quickly and automatically generate ads for products that are being sold online. As market conditions change, the ad affiliate can correspondingly adjust ad bid prices and product selections. For example, an ad affiliate could target for ad placements products that are currently high-value or high-demand. A product seller is relieved of the burden of creating ads and integrating them with the ad network, and only pays for ads that convert to sales.

CONCLUSION

This disclosure provides techniques that enable a third-party ad affiliate to automatically generate product ads and price them based on the revenue they generate. For example, an auto-generated ad is priced based on a comparison between the cost of placing the ad and the referral fee received upon conversion of ad to sale.