



Behavioral advertising: Challenges and opportunities for online advertisers

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Abstract

The realization that the web site behavior is a pretty accurate indicator of product purchase intention is not now new. Behavioral targeting has been around for years. Most of the behavioral targeting companies tell online advertisers and publishers alike that the real key to using this information more efficiently is to apply the behavioral metrics to measuring and assessing what unique visitors do.

As website advertising and data collection methods change, the Behavioral advertising environment increases in the level of complexity which can be a threat for the upcoming businesses and the consumers. It is getting a plenty of attention for being the next big thing since the advent of contextual advertising. It is the time for online advertisers to explore the opportunities and challenges which eradicate the obstacles and emphasizes on developing successful creative advertisement strategy so that the effectiveness of their campaign increases.

Behavioral advertising is a form of online advertising that follows the user around. The theory behind behavioral advertising is that while the people are web surfing they see more of the advertisements most of the time. Recent studies suggest that behavioral advertising converts better than contextual advertisement targeting. This paper develops the conceptual framework to analyze the significant opportunities and challenges for behavioral advertising in the current scenario that can support the online advertisers and publishers to frame the strategies to deal with.

Keywords: behavioral targeting, online advertisers, opportunities and challenges

Background

Advertising is the backbone of the Internet and the core of most digital monetization models. As Internet advertising and data collection practices change, the behavioral advertising environment increases in the level of complexity which can be confusing for both consumers and businesses. Online advertising now includes a wide range of vendors, intermediaries, networks and affiliates who may interact with user data. Businesses should understand their practices in order to plan privacy compliance and ensure consumer trust. Consumers expect company sites to be responsible for the data they submit, even in cases where intermediaries have business relationships that complicate legal and technical responsibility.

With the rapid growth of the World Wide Web (WWW), online advertising channels, such as sponsored search, contextual ads, and Behavioral Targeting (BT), are showing great market potentials. However, in contrast to the widely studied general sponsored search, BT, which refers to the delivery of ads to targeted users based on information collected on each individual user's web search and browsing behaviors, is still under explored in academia.

Introduction

Advertising in international markets is a constant concern for global marketers. Problems exist when crossing cultural boundaries because of the differences that define each culture. "Never has advertising appeared so pale and lifeless", wrote

Rust and Oliver (1994, p. 71). Those authors pointed to increased criticism of advertising's effectiveness as well as lower advertising expenditures. Technological change, the blame for much of these trends, will only increase in the future. A recent survey of leading US advertising executives questioned about advertising's future found that the most important factor for the future of advertising was "new media technologies" (e.g. the Internet and the Worldwide Web).

The Web and other new media are not merely "fragmenting" audiences, they are atomizing them, creating one to one relationship opportunities for marketers. Consumer relationship marketing takes advantage of computerization to shift from short-term transactional strategies to a holistic approach increasing the bond between consumers and producers. The Web facilitates this communication strategy. Databases target services with direct response advertising, focusing on customer retention instead of acquisition. Relationship marketing necessitates more, and better, advertising research.

Novak and Hoffman (1997) emphasize that new media are integral to the future of advertising research. "Media researchers need to stop working on reach and frequency models for mass media and focus on methods of communicating with customers on the information superhighway."

Marketing communication consisting of sales promotion, public relation, direct marketing and advertising comprise an important component of e-commerce strategy (Strauss and

frost, 2001, pg 220) E marketer's use these tools to create brand awareness, preference and selection. Internet advertising is an especially important part of e communication strategy because of the vast sums spends by firms and because of the crucial role advertising plays in informing and persuading consumers. Internet advertising can be viewed as consisting of two components:

- a. Offline traditional media advertising (TV, Radio, Magazines, newspapers and outdoor/other); and
- b. Online advertising (paid for spaces on the website or email such as banners ads, Skyscrapers ads, dynamic media, pop ups and buttons etc. (Strauss and frost, 2001, chapter 6 and 7).

The Internet has created new opportunities for targeted advertising and communications. Innovative technologies make it possible to communicate with consumers and to create programs that stand out. Online advertising and direct marketing solutions firms have taken fundamental advertising principles and created technology for the Internet that enables programs to be relevant, meaningful and targeted, thereby generating greater results. They have also eliminated many challenges for advertisers by acting as an intermediary between online advertisers and Web publishers.

Technology that optimizes the use of the Internet is changing constantly. New features and services that you may want to incorporate into your online marketing program include:

- Voice emails
- Privacy/Opt-In
- Broadband
- Viral marketing
- Wireless platforms
- Taking the plunge

The Internet is the fastest growing major advertising medium. According to research firm Zenith Opt media, online advertising grew more than 30% last year and 2007 should bring more of the same. The news gets better: by 2009, the amount spent on online advertising will near \$43 billion and comprise about 9% of all advertising spending. That's significantly more than the 5.8%, or \$24.5 billion, advertisers spent online last year.

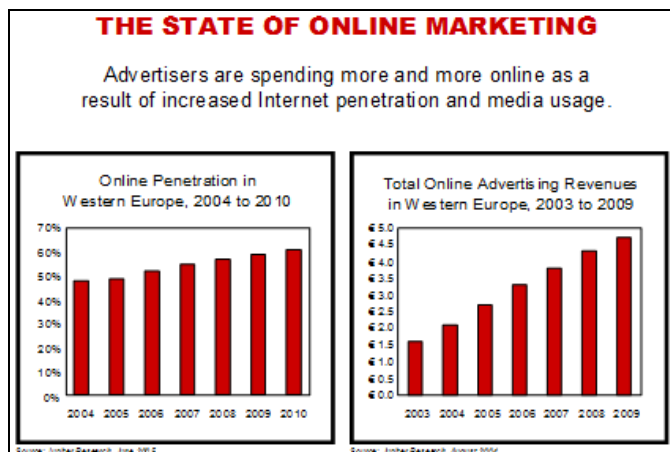


Fig 1

Behavioral Advertising

Behavioral advertising has been getting plenty of attention lately for being the next big thing since the advert. The theory behind behavioral advertising is, in a sense, pretty simple. Most people are bombarded with ads most of the time, especially when web surfing. As a result, we tune them out. Because of the usual advertising practices, we might be better at tuning out ads that are in the same context as the content we're reading. In other words, someone reading content on a web site about where the best ski slopes are just might have completely ignored an ad for your lovely Aspen gateway. To rise above this clamor, it's necessary to hit web surfers with a surprise, something that doesn't fit the normal context. Think about it: aren't you more likely to stare at someone talking into a banana than a cell phone?

Recent studies have shown that behavioral advertising converts better than contextual ad targeting. But there is some confusion about what behavioral advertising is, and particularly, what it isn't. There is also the concern about privacy issues that surround the idea of targeting ads based on individual user behavior. And with behavior targeted advertising being very new in comparison to the familiar methods traditional banner ads or contextual advertising, some people get nervous about being targeted with ads today because of a website they visited yesterday.

What exactly is behavioral targeting? This refers to advertising that is targeted to a specific individual based on that user's previous surfing behavior. This is quite different from the more common targeting method of displaying ads matched to the specific content of an individual page or to all users in general. With behavior targeting, this would mean that two people could see vastly different ads when viewing the identical webpage at the same time.

For example, the person who frequents sporting sites might see ads for hockey tickets or golf clubs on a page about the local business economy, while the woman who visits travel sites regularly might see ads for vacation packages or travel agents. These ads, while not related to the article about the business economy, are still much targeted to that particular user at that particular time. And this super tight targeting of the individual is what makes behavioral targeting so successful to those advertisers using it.

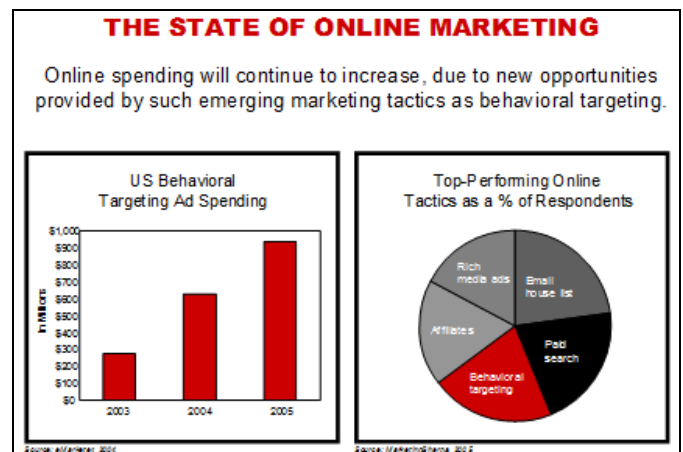


Fig 2

Behavioral targeting is definitely an up coming ad format, even though it accounts for a relatively small percentage of online advertising. Currently, only 8% of all online advertising is behaviorally targeted. But with current studies showing how well it works and converts for advertisers, it can only mean more advertising dollars will be steered towards this method of targeting.

Among various online advertising techniques, Behavioral Targeting has been attracted much attention recently. According to the definition of "Behavioral Targeting" in Wikipedia [15], which is a good summary of BT related articles, "BT uses information collected on an individual's web-browsing behavior, such as the pages they have visited or the searches they have made, to select which advertisements to display to that individual. Practitioners believe this helps them deliver their online Advertisements to the users who are most likely to be influenced by them." In our problem configuration, each individual is defined as a search user. According to this definition, BT is generally used for improving the influence of online advertising by targeting the most relevant user for the ads being displayed and vice versa. There are generally two steps in behavioral targeted advertising user segmentation and user segments ranking. The first step aims to segment users according to their behaviors and the second step aims to rank targeted user segments for an advertisement.

Internet Advertising Techniques

Internet advertising techniques for online businesses should be battle-proven. These 10 Internet advertising techniques can boost sales through increased visibility and credibility.

1. Awards & Competitions

The key to using awards as an Internet marketing device is in giving ratings - not prizes. It's cheaper, but the real benefit is that ratings enable you to get your online business noticed.

Pandecta, for example, lists the top 20 free business e-zines. For every e-zine that makes the list, we e-mail the author to congratulate him or her. That e-mail does two things:

- 1) It is designed to convince the author that the Pandecta top 20 is an exclusive club, and that being rated there is a fantastic achievement (which it is).
- 2) We attach this image for them to place on their sites to enhance the credibility of their own sales efforts.

We ask them to link the image to our site, but even if they don't, the icon gets our name out there. That is enough, because it creates brand awareness and we've registered our title-domain (pandecta.com). That way their visitors will still find us easily enough.

2. E-zines (Newsletters)

The amount of work required to maintain a top e-zine makes this marketing technique unsuitable for most. It is no good to send out an average e-zine. In Internet marketing, e-zine is the image of online business.

Give it away for free, include as little advertisements as possible and as much content as possible. Don't try to make money off your e-zine. It is a tool. It reminds people of your products and establishes you as an expert in your field

3. Premiums

In the real world, premiums include coffee mugs, ties, key chains etc. A high quality logo and/or company name is printed on it and it is handed out for free.

An online business can also utilize all these in Internet marketing, but think about screen savers, backgrounds, mouse pointers, mouse pads etc. As long as it is free and looks great, people will use it and be reminded of your business every time they do.

4. Speeches

This Internet marketing technique is not for everyone, but a great way to show that you are a leading authority in your field. When you speak before your local chamber of commerce or trade association, the spin-off publication can be substantial.

Speeches are the most effective offline Internet marketing technique.

5. Articles

The same advantages here as for speeches, with the added bonus of reaching a bigger audience over the Internet and the fact that you don't have those podium spot-lights in your eyes. The e-zine world provides a fertile ground for your Internet marketing efforts. There simply are too many e-zines, so fresh content is highly valued. You shouldn't have too much trouble getting published. Don't just pitch your business - wrap your sales pitch in content that readers will appreciate and enjoy.

6. Bonuses

Ideally, every product that is sold should include a bonus. It is a widely used marketing technique on the Internet so users almost expect it.

For example: "Buy this gardening book for just \$17 and get a free 4-day e-mail course on creative garden design!"

The bonus should be a high quality product.

7. Free Samples

On the Internet, as in real life, free samples attract attention. If the sample is good, attention turns into new sales.

At Pandecta Magazine they offer a sample issue. It is exactly like the regular monthly issues in every way - and that is vital. Don't spice up the free sample for the sake of marketing the product. The idea is to show the customers exactly what they'll get for their money. This is a trust-building opportunity.

8. Special Offers

The previous customers and e-zine subscribers should be made to feel special. They have trusted with either their credit card info or their contact info or both, so treat them like gold. Offer them specials, tell them about new products before tell anyone else etc. Send them something for free every now and again. Something other people have to pay for.

9. Free Services

Chances are that you found this page after you did a search for "Internet marketing for online business" - not because you knew about (or wanted to buy) Pandecta Magazine. At least

now I've told you about Pandecta. The name will stick in your head forever. Pandecta Pandecta Pandecta!

Seriously, if site, is about a single product, then you should consider offering something for free on the site. That will attract people who could use the product but just don't know about it yet.

That is crucial in Internet marketing. Your online business has millions of potential customers out there. Free stuff gets them to your site - there you have an opportunity to sell your product - after delivering the free stuff you promised.

This is important. If you deceive your visitor she'll hit that dreaded back button before your entire page loads. Your page should deliver on the promises you make in the site description.

10. "Thank you" Notes

Always e-mail your customer within 24 hours after the sale. Thank them for their support. Ensure them that they can count on you for assistance, if needed.

It is vital that you make the thank you note as personal as you can. Don't leave a bitter taste in your new customer's mouth. Use the customer's first name and put your name at the bottom. Round it off with a return address like *mary@pandecta.com*. Not *techsupport@443.ldf.freestuff.net*.

Why the rise in behavioral targeting?

Behavioral targeting enables marketers to reach in-market consumers and increases the value of publisher inventory. It allows site owners or ad networks to display content in a more relevant form to the interests of the individual looking at the page.

Increased spending by traditional advertisers-

- Experience/comfort with audience segmentation offline will lead to increased behavioral dollars online. Increase spending = sold-out inventory-
- Ability to create behavioral segments across content increases the value of run-of-site inventory. Success of contextual and search advertising-
- Behavioral targeting provides the level of relevancy – and response – delivered by the ever-popular search marketing

The Opportunities

The breadth of Internet usage data available to marketers is continuously expanding, making it easier to create detailed consumer profiles. Yahoo, for example, divides its audience into target able groups for advertisers, such as “consciously cruising” (eco-conscious drivers interested in alternative fuel cars). Consumers in this category have performed a series of Web-based actions indicating their readiness to purchase. For example, they may have searched alternative fuels, visited Yahoo’s Green Center, and looked up the price of a Toyota Prius. Compare that level of real buying interest with, say, the broad swath of people who read *Car and Driver* and a marketer gets seriously interested.

1. Integration at the business and data levels is key: Online advertising and marketing efforts should not be considered activities distinct from the rest of the business-planning cycle. Most campaigns will result in some degree of impact that needs to be managed. Tracking and analyzing the impact of

advertising and marketing efforts requires a high degree of coordination between marketing and technology managers. A high degree of data availability is critical to allowing marketers to determine the success of campaigns in driving revenue.

2. There will continue to be an overwhelming number of options to choose from: To avoid spending all your time reading marketing materials, take the opportunity to articulate clearly not just the objectives for a specific campaign, but your objectives as an organization. Though it can be difficult to do so give speed-to-market pressures, make decisions about investing in technology based on the solution's ability to move you closer to your long-term goals. And involve other departments in the decision. Ask for the opinions of the IT and operations departments. The ability to rely on a tool over the long term will be greatly affected by how well one can integrate it into the enterprise.

3. Addressing B2B challenges at an enterprise level is difficult: A key step on the road to a solution is acknowledging how difficult it is to measure and manage B2B advertising and how crucial it is to understand how the organization is affected by this advertising. What is necessary to realize is that there are few easy solutions right now and that anyone who promises one should be viewed somewhat skeptically. Expect to put in a lot of elbow grease, be sure to make a lot of new relationships in your company, and be prepared to learn more than you thought you needed to know. The biggest challenge to the widespread adoption of behavioral targeting continues to be consumer privacy concerns. To recall the recent furor when Face book announced it would sell user information to marketers. Even though websites and ad networks claim they’re not collecting and storing personal data, like usernames or home addresses, many consumers are offended by the idea that they’re being tracked.

Another drawback is Tracking technology still has trouble distinguishing multiple people using the same computer. In households with a family computer, marketers are not able to accurately target who is clicking where, and why, unless each user has a separate log-in. Until better technology can address this issue, behavioral targeting will continue to fall short of its promise.

Common Challenges

While each organization faces unique challenges, some consistent themes emerged are:

- 1. Planning marketing and advertising campaigns:** Limited access to information and budgets makes planning effective advertising programs a significant challenge, especially for smaller organizations. Trial and errors not being an option, attractive alternatives are such lower-cost strategies as keyword placement and email marketing.
- 2. Tracking post clicks activity:** The tracking of customer activity beyond the initial acquisition event proves daunting without the data management infrastructure to do so. Many companies have chosen to outsource tracking user events (such as a purchase) to organizations such as *Double-Click*. Although this certainly is a viable solution,

concerns over sharing customer information with external vendors should be weighed in making such a decision.

3. **Structuring measurable agreements:** The lack of true accountability for post click activity as it pertains to cost-per-click, -acquisition, or -conversion models is an issue even for the more established players. While commercial solutions exist to provide verifiable data, the contractual issues associated with payment are more difficult to address.
4. **Selecting the appropriate vendor:** Given the wealth of providers of everything from software solutions to email lists, determining the criteria for evaluating potential vendors is a challenge mentioned.

Besides this the largest obstacles are privacy concerns and the protections people enable on their computers to ensure their privacy. This includes ad-blocking programs, not accepting third party cookies and programs or settings that automatically clear cookies daily or at the end of each browser session. Many spy ware protection programs flag cookies, including ones used by behavioral targeting ad networks, as suspicious and urge users to delete them. This results in confusion by users about cookies and how safe or dangerous they really are and makes them less likely to accept third-party cookies.

Another problem of behavioral advertising is the inability to differentiate between multiple users' surfing habits on the same computer, something that is common in family households or with roommates. The woman who might have seen real estate ads might actually see sporting ticket ads because her husband checked the scores the night before. And this can decrease conversions, because while in actuality the targeting worked as it was supposed to, it resulted in targeting the wrong family member at the time the ads were shown. Also a problem faced is lack of industry standardization.

The Future of Behavioral Targeting

As targeting, tracking and reporting technologies advance, behavioral solutions will expand across objectives and channels.

- The rise of network solutions- With advertisers demanding increased reach, network solutions will continue to grow
- Multi-channel behavioral targeting- Behavioral solutions are expanding beyond the Web to include search and email-driven platforms
- Increased accountability- Advertisers are looking past basic reach metrics to determine campaign impact on actual revenue

Conclusion and Future Work

For effective behavioral targeting strategies, tracking the user search behavior can perform better. BT can help online advertising, and BT strategy can perform better in the behavioral targeted advertising. This study can provide valuable guidelines for the behavioral targeted advertising research and related system design.

For continued growth, providers must address the underlying challenges and issues associated with behavioral targeting. Challenges of Behavioral Targeting are Consumer privacy concerns, the debate over data ownership and lack of industry standardization. Networks and publishers must establish a

clear policy with regard to what data will be shared, how the data will be used and ultimate ownership of the data.

In our future work, we will conduct more studies along several directions step by step. As introduced, some advanced user segmentation algorithms can give better results in behavioral targeted advertising. We will explore the detailed BT algorithms for further improving the online ads influence. We will study better user representation strategies such as user search sessions, the content of user clicked pages and user browsing trials for targeted advertising. Finally, after the users are segmented, how the user segments can be ranked for a given ad is an important problem but is not deeply studied in this report. We will also study the user segment ranking problem for behavioral targeting in our future work.

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