Targeted Online Advertising:
Persuasion in an era of massless communication

By

Eleanor Coumont Baird
B.A. Political Science, University of Toronto, 2000

SUBMITTED TO THE MIT SLOAN SCHOOL OF MANAGEMENT IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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ABSTRACT

In recent years, the decline of the mass media and the growth of a participatory and fragmented audience online have forced advertisers, agencies, and publishers to revise their thinking about delivering marketing messages to consumers. Changes in web technology and consumer behavior has, in many cases, increased opportunities to target advertising, yet how to make the most effective use of the web as a channel for commerce and communication has proven to be more elusive. This paper investigates the implications of this shift for consumers and industry; meaningful metrics for targeted ads; and the how, where and why of innovation in this field. Using this data, it also looks ahead to the future, and how evolving concepts of relevance and utility for consumers will shape online advertising in the years to come.

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INTRODUCTION

The goals behind targeted online advertising campaigns are as diverse as the organizations that run them, but the overall purpose of the practice is simple: to monetize the web. The internet is unique among media forms in that it has potentially global reach, yet it is also vast and highly fragmented, and continues to get larger and more scattered every day. Targeted online advertising is designed to address the daunting task akin to finding a needle in a haystack; locating and segmenting those customers that are interested in your product, then delivering a message that gets a measurable response. Increasingly, targeted online advertising is not about advertising, but about providing an experience that drives loyalty, recommendations and purchases. This paper explores how targeted advertising in the United States is delivered, how it is measured, how it is evolving, and what the future might hold.

Which half?

John Wanamaker’s declaration that “I know half of my advertising is wasted, I just don't know which half”, is famous because, until recently, it was effectively the status quo.

When the first edition of David Ogilvy’s seminal book, “Ogilvy On Advertising” was published in 1983\(^1\), there was a hunger for media metrics and a market for services from companies like Nielsen, research departments were identifying consumer preferences, audiences were segmented and targeted, the elements of a good commercial were known, and companies could, with historical data, estimate the budget and media buys that would lead to a certain number of sales. But there was also a sort of tacit acceptance that the actual effect of advertising, its causal link to could not be completely known, and observing consumers throughout the purchase cycle was not feasible.

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The internet has begun to reduce those uncertainties, and in so doing changed the advertising and media ecosystem. Advertisers and publishers have access to much more data, available much more quickly, on how many people are seeing and interacting with their ads and brands. Advertising networks, that buy and sell inventory on partner publishers’ sites, can obtain a large amount of anonymous data about what users do across thousands of popular web destinations. Search engines can track terms that people use to find information on the web. Publishers that require users to log in can track an individual’s activity on their site. Using this data, profiles and models of consumer behavior that attempt to serve relevant, timely ads to consumers to ultimately increase sales. There is also the opportunity to target Internet advertising using more traditional means derived from television and radio, supported by 21st century technology, and fast, plentiful data.

This paper is about targeted online advertising, a collection of technologies and practices that is fundamentally changing the relationships between advertisers, media, and consumers, as well as spurring a renegotiation of accountabilities, currencies, metrics, and norms in advertising, marketing, and privacy. Although this paper will focus on behavioral and psychographic targeting online, other types – such as daypart, contextual, demographic, and geographic will be defined and discussed.

Targeted online advertising also encompasses some of the most fundamental opportunities and challenges that we have encountered on the web. The stakes for everyone are high.

The stakes for the advertising industry – agencies and ad networks - are high because online advertising is one of the few sustainable growth areas in the business, a trend shown in multiple studies. A recent report by Nielsen found that advertising spending increased by only 0.6% in 2007, but that advertising on the
Internet grew by 18.9%.\(^2\) Looking forward to 2008, when the economy has begun to weaken significantly, studies by TNS predicted a general increase in advertising spending, but due mainly to the Olympics and the U.S. Presidential election. However, spending on online display ads was expected to increase by 14.4%, while network TV was only expected to gain 2.7% and spending on newspaper ads decline by almost 1%.\(^3\) Seventy-six percent of the marketers and media buyers who responded to a survey in late 2007 were planning to increase their online spending in the next six months.\(^4\) In mid-2007, experts on the subject among the faculty at Wharton agreed that the potential of targeted online advertising to change the industry would likely insulate it from recessionary pressures.\(^5\)

This shift is due to the high stakes for marketers in keeping up with changing demands on from both their organizations and consumer behavior. Faced with a slowing economy and more pressure to justify expenditures from their organizations, online advertising is seen by many as a way to introduce more accountability via quantifiable results. As one analyst put it, "With money tight, marketing executives will continue to gravitate toward the Internet, looking for more measurable ad formats to buttress their positions".\(^6\) This is particularly true of targeted online advertising, which sells itself on the ability to deliver relevant ads to the right people at the right time, and increasing the bottom line. On the consumer


\(^3\) La Monica, Paul R. (January 7, 2008). “Report: Ad spending to be up in ‘08, but…”. Media Biz Blog, CNNMoney.com. Last accessed April 2, 2008 at http://mediabiz.blogs.cnnmoney.cnn.com/2008/01/07/report-ad-spending-to-be-up-in-08-but/. It should be noted that the 14.4% growth was for display advertising only; this number does not include paid search or video ads.


side, marketers need to follow the customer’s media usage and attention, and more of that is turning to the web. In 2006, 73% of American households had Internet access, by 2012, 79% will. Although that does not sound like a huge increase, the annual increase of Internet enabled households is estimated at 2.3%, when absolute number of households will be increasing by an estimated 1.1% per year. Moreover, as years of usage increase, so does users’ variety and depth of internet use, offering more opportunities for marketers to engage them.

For consumers, the stakes are high because their activity online is the source of many of the benefits that businesses are seeing from targeted online advertising, and the results have a direct impact on their interaction with the medium throughout the average day of most Americans, both at home and at work. Although many consumers are not fully aware of the extent of the clickstream tracking being done online, these changes empower consumers in many ways to vote with their mouses, browser settings, information, attention and money when it comes to products and companies.

Using data from the popular and trade press, academic journals, and interviews with more than a dozen professionals working in the industry, this paper addresses the following questions:

- What types of targeting are available online, and how do they work?
- How has targeting online advertising evolved? What changes and innovations in the advertising ecosystem have taken place in response?
- How accountable is this type of advertising? What are the outcomes advertisers are looking for when they use it? What is it good for? What are the strongest metrics?
- How does innovation happen in this field? Who are the innovators today? What makes them innovative?
- What will targeted online advertising look like in the future?

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8 Ibid, p. 6.
To answer these questions, the paper will begin with a discussion of the current state of the practice, then moves to an analysis of metrics and measurement and a discussion of the origins and types of innovations on the market today, followed by some potential future scenarios.

**Methodology**

In addition to answering the research questions, the purpose of this project was to bring together a number of diverse sources and viewpoints from and about the online advertising industry from both primary and secondary sources.

Secondary resources included a number of online and offline resources. Books and academic articles on online advertising and marketing were used for background and foundational material for the industry structure, definitions, and concepts. Articles from the trade and popular press, including blogs, were an important source for information on contemporary industry events and issues, as were commercial research reports. Company and industry association websites were also consulted extensively.

Primary research was a key component of the project, comprising of personal interviews with over a dozen professionals working in the field. These interviews were considered to be a vital component of the research, providing deeper insight into the practice and the sources and direction of marketable innovations in the years to come.

As the paper is intended as an overview and prediction about the future directions of the industry, particularly behavioral targeting, interviewees were identified and contacted from a diverse selection of companies working in the space - ad networks, publishers, advertising agencies, and data and analytics firms - as well as industry associations. Interviewees' levels in their organizations ranged from CEOs to Strategists, and because a knowledge of the technology the marketplace were important, most
interviewees were senior managers in business development, sales, marketing, or research functions. There were also efforts to speak with organizations of different sizes; the final group included people from large, public to small, private companies.

Interviewees were drawn from four sources:

- ~47% were part of the author's existing networks, established through previous course or research work;
- ~11% were contacted through their company's website; and
- ~42% were referrals from previous interviewees and third parties[^9].

To ensure that information was relatively current, interviews were conducted in a period of approximately ten weeks, between February 11 and April 18, 2008.

A full list of primary and secondary sources, as well as standard interview questions, can be found at the end of the document.

[^9]: In early March, I posed the following question to other people with profiles on LinkedIn: “Does anyone know of innovative approaches to targeted online advertising?” I received six answers, five of them public. Three of the five identified specific organizations and/or people, two of whom I eventually interviewed. See [http://www.linkedin.com/answers/marketing-sales/advertising-promotion/internet-marketing/MAR_ADP_INM/178554-4685805?browseIdx=0&sik=1207306160370&goback=%2Eamq](http://www.linkedin.com/answers/marketing-sales/advertising-promotion/internet-marketing/MAR_ADP_INM/178554-4685805?browseIdx=0&sik=1207306160370&goback=%2Eamq).
PART I

THE HISTORY AND CURRENT PRACTICE OF TARGETED ONLINE ADVERTISING

The concept of targeted advertising is nothing new for marketers, who used demographic, contextual, geographic and daypart targeting in print, radio and television for decades before the internet existed. The problem was that it was not feasible to refine the targeting further to get to the most likely customers within those broad groups, or to accurately gauge their reactions to the advertising. The purpose of this section is to explain how targeting and segmenting worked before the internet, what has changed, the technology used to target online and the types of targeting currently available, and current targeting practices and issues.

Mass Communication: Reach, but limited personalization and control

The problem with targeting in mass media was efficiency and measurability. Ads are generally bought and sold by the thousands of views (CPM), also referred to as impressions, that they were expected to receive from certain demographic groups. So if a marketer was trying to reach mothers with young children, the advertising could be made efficient in terms of reaching a broad demographic group, such as women 18-34, but not in terms of reaching only the most likely consumers within that demographic, since the women in that age range without children would probably tune the ad out.

The spots could be further targeted by daypart or context, for example, by placing it in a parenting magazine or during a daytime show on a lifestyle cable channel, but there was always the problem of leaving some people out or reaching some people for whom the ad, and likely the product, was simply not relevant. Although companies could, over time develop models to predict sales following a campaign or new TV spot, was all but impossible to reliably trace purchase patterns back to specific creative or media.
Enter the Internet: Targeting becomes more precise

Before 1997, in the very early days of the Internet, segmentation and targeting were not hot topics, as the primarily white, male, and affluent audiences were considered too homogeneous to make it worthwhile. However, as Internet use became more widespread in the late 1990s, publishers and advertisers began to experiment with some targeting techniques borrowed from television, print and radio. By the early 2000s, options to target based on users’ clickstream patterns emerged and gained market traction.

In the last ten years, there has been a very rapid evolution in targeting techniques. Joe Wilson, a co-founder of the ad targeting network Tacoda, was working on the technical staff of a national newspaper’s interactive division in the late 1990s. At that time, there were an increasing number of conversations around how to use the data the publisher was collecting from user profiles to target ads, but slow server processing speeds and a feeling that consumers would not log in each time to view content were a barrier. At the time, the most sophisticated methods being used were rotating an ad through various sections of the site, running ads at specific times of day, and varying ad sizes. Some publishers, including the New York Times, were also experimenting with advertising packages that capped or guaranteed frequency of exposures while on the site.

Targeting methods that rely on user data to serve advertising are very new. Although it was being discussed in the late 1990s, behavioral targeting got lost in the burst of the tech bubble. The technology only gained traction after the recession of the early 2000s, when it started being adopted by companies appearing in the trade press in late 2003 and early 2004. However, it has been in just the

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11 Interview with Joe Wilson, Turner. Mr. Wilson noted that there was a company called Engage that had a behavioral targeting product in 1997-1998, but that the systems to implement it were not yet available, and the market not yet receptive to the idea of using clickstream data to target users.
13 See, for example: Shaw, Russell (April 28, 2004). Behavioral Targeting 101. iMedia Connection.
last two years that behavioral targeting has become a broadly accepted technique that agencies and marketers are comfort buying against.\textsuperscript{14} Social networks, which target to registered users based largely on their profile data, have only been launching specific solutions in the last two to three years.\textsuperscript{15}

There are multiple ways to collect and analyze data, to serve ads, and to design campaigns. The next sections will explore these in more detail.

**Cookies, Pixels, and Data: How targeted online advertising works**

Although the techniques are different, targeting online advertising requires four things: a publisher with a website, a user accessing it, ad content, and a means to dynamically serve ads. Three primary elements differentiate ad targeting techniques: how data is gathered, how the target itself is constructed, and who serves the ads.

As shown in the graphic below, there are multiple ways to gather data, ranging from very low to very high amounts of user control, discretion, and participation.

\textsuperscript{14} Interview with Joe Wilson, Turner.

\textsuperscript{15} For example, Facebook’s NewsFeed feature (2006), Facebook Beacon (2006), and MySpace hypertargeting (2007).
Types of data used for targeting online ads

**Increasing direct consumer input/participation**

<table>
<thead>
<tr>
<th>Data</th>
<th>IP Addresses</th>
<th>Timing</th>
<th>ISP</th>
<th>Clickstream</th>
<th>Search</th>
<th>Purchase &amp; Trial</th>
<th>Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Used to identify the geographic region from which the Internet is being accessed, not necessarily unique</td>
<td>Time of day when a website is accessed by a user</td>
<td>Information from Internet Service Providers about their customers' online activity</td>
<td>Data collected on web browsing history, either from a panel of users or all visitors to a site or sites</td>
<td>Advertising targeted based on search terms entered by users</td>
<td>Data entered by consumers as they shop, place items in carts, sign up for trials</td>
<td>Data entered by the user about themselves, such as demographics, interests, favorites, etc.</td>
</tr>
</tbody>
</table>

**Collection Method**
- Read IP address from cookies on the user’s computer, data sent back to advertiser/ad network, which serves the ad
- Run particular ads at particular times of day and/or read time pages accessed from cookie on the user’s browser
- Ad network/ad inventory management company obtains data about consumers’ surfing behavior from the ISP
- Cookies placed on user’s computer, often web beacons to help read and collect data; targeting models built
- Serve ads based on current search and/or pages visited; develop models previous searches
- Analysis and modelling of data from user activity involving shopping carts, visits to product pages collected via cookies or based on user inputs
- Analysis of information entered by users in aggregate, cookies

**Key Source of Competitive Advantage**
- Localized targeting, ability to read cookies on multiple user computers and relationships with local advertisers
- Publisher’s individual or ad network’s collective ability to draw desirable audience segments throughout the day
- Availability of data from all over the Internet, not limited to a particular network; Partnership with key ISPs with right demos
- Quality of user base, availability of extensive data, new targeting technologies or methodologies to increase ad relevance & response
- Partnerships with strong brands, products, size and quality of membership, ability to generate strong leads, volume and quality of data
- Size and quality of user community, quantity of information available, ability to interpret data in a way that is relevant to marketers

**Greatest opportunities for technical & methodological innovation**

**Greatest opportunities for process and partnership innovation**
As this paper is focused on behavioral targeting, the pages that follow will delve into four concepts in more detail: clickstream data, search, purchase and trial, and profile data.

**Clickstream Data: Cookies, invisible images, and models**

Many of the behavioral targeting techniques used today rely on cookies. They are one of the most common ad targeting tools, and useful because they “remember” a user’s actions, and can be used track and record actions, from clicking on a link to adding an item to a shopping cart.

### Screenshot of a list of cookies stored on the author’s computer, April 2008

Cookies are small text files that are saved on a user’s computer's hard drive in a dedicated file in the web browser folder. The typical cookie, used for targeting purpose includes:

- Domain of the page where the cookie originated;
- Data on the date and time that the cookie was created (i.e. when the user visited the page); and
- A unique and randomly generated identifier number.\(^\text{16}\)

Publishers can make cookies sessional, meaning they are deleted when the browser is closed, or persistent, which can be set to stay on the user’s computer until they are actively deleted.

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\(^{16}\) There are also encrypted cookies that are used to “remember” personally identifying data that users enter on a site, such as a username and login, but these are not used for targeting purposes.
Web beacons or web bugs, also called 1x1 pixel tags, can be any image file, but are usually a very small, 1x1 pixel, clear gif image, invisible to the user, that can be embedded in an html document, such as an email or a web page. When the html document is opened, the user’s browser reads source code that provides instructions for how to display the elements on a page. When the image is called include a special link of code that sends, often a different server:

- Internet Protocol (IP) address;
- Time and date of the page view;
- Type of browser used to view the page; and
- Data from non-encrypted cookies on the computer.  

These 1x1 pixel tags, in combination with cookies, enable publishers and ad networks (explained in detail, below) to obtain information on the behavior of web users of a particular computer in terms of what sites they are visiting, when, and for how long, what browser they are using and where, approximately they are located.

Search Data

Search is a large and complex topic, a full discussion of which is far beyond the scope of this paper. It is a vital part of the online marketing mix, making up a large percentage of many marketers’ budgets.

There appear to be two primary reasons for this. The first is that search is a gateway for many people to access the internet; a recent study found that 90% of people find or launch websites through search. 

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17 In HTML email messages, often used in direct marketing, web bugs can also be used to determine when and how often a message was opened by the original recipient, how many people to whom it was forwarded opened it, and the IP address of the recipients. See European Interactive Advertising Bureau (www.allaboutcookies.org) and EFF - The Web Bug FAQ (http:/w2.eff.org/Privacy/Marketing/web_bug.html) for more information.
18 Plummer, Joseph; Rappaport, Steve; Hall, Taddy; Barocci, Robert (2007). The Online Advertising Playbook: Proven Strategies and Tested Tactics from the Advertising Research Foundation. New York:
Being this point of first contact where users identify their interests in a brand, product type or topic, popular search engines like Google, Yahoo! and MSN have made a considerable amount of money auctioning keywords for a higher position on an earlier page of results to target messages to a consumer with particular needs and interests. By analyzing search terms and user patterns using complex algorithms, these sites can optimize placement and targeting of paid search results based on user interest and place them alongside so-called “organic” search results.

The second reason that search is so crucial is that searchers who are looking for a product, service, or a solution to a problem are often “in the market” for something aware of brands, and less sensitive to price. A Yahoo! study found that, compared to non-searching internet users, searchers spend 20% more in the category not as likely to be looking for a deal, less likely to switch brands because of price, more likely to be looking for information or help about a product they had in mind, and nearly two thirds were well into the decision making process. They are, essentially, a pool of prospects that are likely to convert into customers.

ISP Data

Another potentially rich source of data comes from Internet Service Providers (ISPs), who sell internet access to consumers and companies. The advantage of ISP data to marketers is that, whereas web beacons can provide data about user activity when they visit particular sites that have the code to send cookie data back to the server, ISP data captures information about all of a user’s online activity across the internet by inspecting electronic information “packets” as actions are performed by the user. This essentially combines information about what search terms a user has entered as well as their clickstream.


According to a recent article in the Wall Street Journal, at least 10,000 internet users in the U.S. have ads targeted to them using this type of data.  

**Purchase and Trial Data**

Another way for marketers to target advertising is by offering ads of offers to people who have shown an interest in a product by purchasing it, signing up for a trial, or putting it into a shopping cart that was subsequently abandoned. Amazon and Netflix use a similar method within their sites when recommending products and displaying recently viewed items. It is often based on information collected with cookies or through user profiles with information such as purchase history.

**Profile Data**

There is also the data that users enter when they create a profile, such as demographic information like age and gender, as well as interests, networks, education, and favorite books, movies, and music. This type of information is used in aggregate by social networking sites, like Facebook and MySpace, to target groups of users. A user’s network of friends can also be a valuable targeting tool, helping to narrow the potential pool of customers and identify new and existing interests by their affiliations.

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20 Whoiskey, Peter (April 4, 2008). “Every Click You Make”. *The Wall Street Journal*, p. D01. Last accessed April 25, 2008 at [http://www.washingtonpost.com/wp-dyn/content/article/2008/04/03/AR2008040304052.html](http://www.washingtonpost.com/wp-dyn/content/article/2008/04/03/AR2008040304052.html). Companies in the space, who seem to either purchase the data from the ISPs or act as intermediaries between the ISP and ad networks, say that they do not receive personally identifiable information from the ISPs, but the latter seem to be reluctant to comment about their relationships with these companies.

21 An example of this practice is the Facebook Beacon program, which published users’ purchases on selected sites in their news feed, which could be visible to their friends on the site or possibly others, depending on the setting of their privacy controls. After an outcry, users are given the choice to opt in when making the purchase, but can still not opt out of all Beacon alerts with one action. In April 2008, a Texas woman filed a lawsuit against Blockbuster for participating in the program, seeking class action status.
Types of targeting

The next part of this section will discuss six types of targeting\(^\text{22}\) using the data collection methods discussed above. They include techniques drawn from the mass media - demographic, geographic, contextual, and affinity – as well as behavioral targeting, a method new to the web.

Traditional mass media targeting methods

Geographic targeting serves advertising messages are presented to users based on their approximate geographic location, which derived from their IP address, often read from a cookie with a 1x1 pixel, but it could also be derived from profile data the user has entered.

Demographic targeting serves ads based on factors like age and gender.

Demographic segments can sometimes be inferred from online clickstream and/or census data, or can be derived from profile data provided by the user.

The diagram shows the different types of data that could be used to get or infer demographic and geographic information for targeting purposes.

\(^{22}\) For a good overview of targeting techniques, see pages 7-32 of: Plummer, Joseph; Rappaport, Steve; Hall, Taddy; Barocci, Robert (2007). *The Online Advertising Playbook: Proven Strategies and Tested Tactics from the Advertising Research Foundation*. New York: John Wiley & Sons.
Daypart targeting serves ads based on the time of day that the user is visiting the site. Although not much is written about daypart targeting on the Internet, it may become more prominent as consumers spend time online throughout the day.²³

Contextual targeting was one of the earliest targeting methods used in mass media. The idea behind contextual targeting is that ads are served that are complimentary to the content around it, such as an ad for airline flights on a travel site or in the travel section of a newspaper, or TV commercials for furniture stores during a home improvement show, to find the audience that is most likely to be in the market for the product on offer. This type of targeting does not seem to require cookies and can be based on keywords set by the page owner, but they could be used to target particular products or creative more effectively.

Affinity targeting is where ads are served to consumers based on their enjoyment in a similar, partnered or related product or media property. Affinity targeting existed in various forms before the internet, but did not have the same volume or type of information to draw from when targeting products or offers.

²³ By 2012, it is estimated that 94% of adults and children will access the Internet both at school/work (for information) and at home (for entertainment and information). See: Greene, Riley, Scevak, Niki (February 6, 2008), p. 7.
Behavioral targeting

Behavioral targeting (BT) is a technology for increasing relevance of advertising to web users that has received a great deal of attention in the trade, and to a lesser degree, the popular press, and it has garnered the attention of regulators. 24

The Federal Communication Commission (FTC), the regulator involved in this field, defined BT as:

“the tracking of a consumer's activities online - including the searches the consumer has conducted, the web pages visited, and the content viewed - in order to deliver advertising targeted to the individual consumer's interests.”25

The Interactive Advertising Bureau (IAB), an industry association, defines BT in a similar way:

“Behavioral targeting 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 be displayed to that individual. Practitioners believe this helps them deliver their online advertisements to the users who are most likely to be influenced by them.” 26

24 In 2007, the Federal Trade Commission (FTC) held a series of events in order to get more information, both the state of the practice of BT and consumer advocates’ objections to it, then issued. The precise definition of behavioral targeting (BT) is somewhat contentious at the time of this writing, as industry associations argued that a discussion paper issued by the FTC included a definition that would apply ‘self-regulatory’ principles to a very wide scope of activity. 25 The definition is technically of “behavioral advertising” but the terms are synonymous in this context. More discussion on the FTC’s involvement can be found later in this section. See: Federal Trade Commission (December 7, 2007). Online Behavioral Advertising: Moving the Discussion Forward to Possible Self-Regulatory Principles. Last accessed April 10, 2008 at http://www.ftc.gov/os/2007/12/P859900stmt.pdf. p. 2. 26 Interactive Advertising Bureau (no date). Glossary of Interactive Advertising Terms v. 2.0. Last accessed April 26, 2008 at http://www.iab.net/media/file/interactive-glossary.pdf.
Both definitions characterize BT as the process of serving ads to consumers based on their previous behavior, including pages visited and searches they have conducted.

I would argue that there are two forms of BT, based on the type of data used rather on the degree of user control, awareness or agency that are part of the discussions around protecting privacy for users.

As shown in the chart, there are two types of behavioral data that can be collected and used for targeting purposes. First, there is the “active entry” data, which is information consumers input in order to accomplish a task beyond simply clicking, when they actively searching, purchasing/trying or communicating with others. “Passive entry” data is the clickstream, a given of any navigation on the web. This ISP data is in between because it can collect both search and clickstream information. All types of behavioral data are used in a similar way: to search for patterns and similarities to build and aggregate profile, model or algorithm to help identify which user. What makes the distinction significant is the amount of specificity with which the user can display an interest. Whereas clickstream data may provide some insights into the psyche that consumers would be unable to express, and does provide a comprehensive view of their browsing activity, it does not necessarily yield as much information about where they are in the purchase decision making process as the active entry categories of search, purchase and trial, and profile data. One
is not “better” than the other – they are just good for different purposes. Probably the best BT strategy would be to use some combination of these elements to achieve different objectives.

With the exception of ISP data, information clickstreams are obtained through 1x1 pixel tags and cookies, as described earlier in this section. Partners in ad networks, put the necessary code to initiate a web beacon/bug on every one of their pages. When the page content is called from the publisher's servers, the code calls a cookie from the server and puts a cookie on the user's computer that records the day, time, unique random identifier number, a site identifier, and page identifier to determine the type of content being viewed.\(^27\); data from user cookies is then processed by the network across all pages and sites.

The next step is often using the data to create algorithms and/or user profiles so that future surfers exhibiting similar behaviors can be targeted in the future through the publisher websites. For most ad networks, profiles tend to be focused on lifestyle (i.e. moms, green consumers, gay and lesbian) and purchase interest categories by product (i.e. cars, clothing, electronics). The nature and number of these profiles depend on the data collected, targeting technique, and the requests of the client group, but they can number from the dozens to the hundreds. These are sometimes too detailed and not cost-effective for media agencies, many of which will buy ad space on “rolled up” consumer groups made up of multiple smaller segments.\(^28\)

The data collected can be used to segment customer groups, by behavior as well as daypart, geography, and in some cases demography. Because ad networks using cookies and web beacons collect the data anonymously, they do not have demographic information for the users. Some do not deal in this area at

\(^{27}\) Interview with Greg Rogers, Tacoda.

\(^{28}\) Ibid. Because of the type of data collected, more ad networks can also do contextual, daypart, and geographic targeting.
all, some attempt to infer based on the clickstream, and others map census data to the information collected online\textsuperscript{29}.

Re-targeting is another form of BT based on purchase and trial data. Consumers who have abandoned a shopping cart are served ads with new offers in a different context and a later time to encourage them to complete the purchase.\textsuperscript{30}

**Timing + intent = relevance?**

The data collection methods discussed in this section are used to accomplish the same goal: gather more information about consumers to make the ad more relevant and increase the likelihood of a response in the form of a purchase at some point in the future. As Frederic Bien of AdBuyNet puts it, "Advertising effectiveness is the result of mainly 3 things: compelling creative, smart targeting, and a great offer. Targeting by itself is not enough. This being said, a great offer and compelling creative have large subjective components. Hence the more one can individualize offers and creative, the higher response one will get."\textsuperscript{31}

To target and increase an ad’s effectiveness, you need to know at least two things: who to talk to and when to talk to them. The question of who to talk to can be difficult to answer, but the question of when is more complex as it is dependent on being present at the right point on time with the right information when the consumer is looking for information and/or gearing up to make a purchase.\textsuperscript{32}

Greater relevance is the key goal of targeted online advertising, although just how valuable degrees of relevance are and how exactly to make ads more relevant is an ongoing pursuit for everyone in the field.

\textsuperscript{29} Tsai (January 2008), p. 26, 27. Interview with Andrea Millett, Media Contacts.
\textsuperscript{30} Ibid.
\textsuperscript{31} Interview with Frederic Bien, AdBuyNet.
\textsuperscript{32} Interview with Ilya Vedrashko, Hill Holliday.
Relevance, and by extension effectiveness, are related to time and frequency of an action, factors that are still a preoccupation in the field. In a recent interview, Toffer Winslow, EVP of Choice Stream said that behavioral targeting was “fairly undeveloped” in deciphering the intersection of interest, something ongoing like a hobby, and intent, a temporary category of interest, such as when you are purchasing something for a child as a gift.\textsuperscript{33}

Part of the answer to unlocking may lie in frequency over a period of time. Greg Rogers of Tacoda, an ad network that uses behavioral targeting explains that, from his perspective, “[j]ust because you go and check out something once, it’s interesting to us, but it’s the repeated behavior that’s very interesting…that means you are potentially entering into a market… we segment our audiences are based on repeated behaviors.”\textsuperscript{34}

Penry Price of Google, which focuses on contextual advertising, explains a slightly different philosophy, focused mostly on the present behavior pattern of the user: “because you’ve searched for something in the past, it doesn’t necessarily, to us, mean you’re going to search for it tomorrow. What is more powerful to us is that specific moment, what you are looking at, reading, typing in. That, to us, is actually more powerful as a trigger for the type of information you’re looking for. So we really rely a lot on relevance, one. And two, with the technology we have we can basically read the web and serve up any kind of message that’s contextually targeted to that page, in real time.”

Joe Wilson, offers another perspective, also focused on a specific point: “The actual techniques employed in behavioral targeting] don’t really try and psychologically figure out what someone’s thinking about, [that’s] obviously well beyond our capability at this point at the very least because of a lack of data, but it


\textsuperscript{34} Interview with Greg Rogers, Tacoda.
is also undesirable and ineffectual. Ultimately, what you’re really trying to do is create these useful commercial buckets, and so while it wouldn’t necessarily mirror that mental state, it’s always been my conjecture that, in fact, ultimately we’re trying to put them into the bucket that most closely resembles their state at a given moment in time.”

Consumers find irrelevant ads “intrusive and annoying”, and serving advertising that the viewer might actually be interested in makes intuitive sense from both a cost and a reputation standpoint. Relevance makes excess inventory more lucrative for publishers, and helps marketers to get “numbers of clicks or views that will convert into a certain number of leads (registered users) or sales”.

The targeting methods used in online advertising attempt to answer the who, and often the question of when, that will make the advertising most effective. Data is the key.

The Issues and the Ecosystem

“The future of advertising,” says Joe Wilson, “is data. The more data you have, the better you’ll be at it.” A key strategic advantage in targeted online advertising is data points – more data can mean better predictive capabilities, and often more reach across web properties in the long term.

The ecosystem that supports targeted online advertising is that the organizations that are in it is complex, partly because there are many players, partly because some of the players have multiple roles, and partly because it is constantly changing. For most companies in this space, the goal is the same: to produce

35 Interview with Joe Wilson, Turner.
38 Email communication with Frederic Bien, Ad Buying Network.
39 Ibid.
advertising that is designed and targeted effectively and maximizes their profit by providing measurable results. This section examines the current structure of the ecosystem, and discusses current issues, such as consolidation, decline in banner advertising, utility of internet advertising, and privacy concerns may shape its trajectory in the future.

The diagram of the current ecosystem, below, is generalized, but it illustrates the relationships among the key groups in the ecosystem:

- Marketers, who want to advertise their product or service;
- Media buying and advertising firms, who develop campaigns and buy time in various mediums;
- Ad distributors and data managers, who collect data, perform the analytics, and serve ads;
- Website publishers, social networks, and online communities, who provide the media context for the advertising;
- Industry Associations, who are advocates for the companies in this space and perform research on a variety of related topics;
- Internet Service Providers (ISPs) who sell internet access to consumers and businesses;
- Regulators, who are government agencies responsible for trade and/or communications;
- Consumer advocacy groups, who lobby the government to protect consumer rights and privacy online; and
- Consumers.
Current ecosystem

Organizations interviewed for this project

Organizations not interviewed for this project
Industry Consolidation

In the spring and summer of 2007, as shown in the graphic below, several significant acquisitions were made by the four major players in the industry: Google, Microsoft, Yahoo! and AOL. There are three trends that we can observe from the data.

First, a continued expansion towards new frontiers for digital advertising by acquiring smaller companies with dynamic ad serving technologies for games and mobile. Second, a push to acquire more data and analytical horsepower, by acquiring ad networks. Third, moves to broaden reach by buying into relationships with publishers on multiple platforms.

There are also some interesting reinventions taking place. AOL, once primarily an ISP that struggled for several years seems to be reinventing itself as an online advertising firm and taking emphasis away from its B2C role. WPP’s acquisition of 24/7 Real Media was a very unusual move. While advertising agencies often have their own research or consumer insight departments, they did not seem to be moving towards building in-house analytical capabilities on par with the ad networks or search engines or, in many cases, creating a strong in-house digital shop, often contracting those services out instead; some also split their media buying and planning and creative shops. WPP’s purchase was interesting because it is a very established, very large advertising company that suddenly had significant digital advertising capabilities, including analytics and planning. At the time of this writing, the acquisition is less than a year old, but it will be very interesting to see if other advertising firms follow suit.
Major Acquisitions, Spring & Summer 2007

<table>
<thead>
<tr>
<th>Event</th>
<th>Company</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google buys Adscape (Undisclosed)</td>
<td>Dynamic in-game advertising technology</td>
<td></td>
<td>March 2007</td>
</tr>
<tr>
<td>Google buys DoubleClick (S$3.1B)</td>
<td>Digital marketing technology, tools, services</td>
<td></td>
<td>April 2007</td>
</tr>
<tr>
<td>Yahoo! buys Right Media ($680m**)</td>
<td>Ad network</td>
<td></td>
<td>May 2007</td>
</tr>
<tr>
<td>WPP buys 24/7 Real Media ($649m)</td>
<td>Search marketing, targeting, ad serving</td>
<td></td>
<td>July 2007</td>
</tr>
<tr>
<td>AOL buys Tacoda (S$275M*)</td>
<td>Behavioral targeting tech, ad network</td>
<td></td>
<td>Sept 2007</td>
</tr>
<tr>
<td>Yahoo! buys Blue Lithium (S$300m)</td>
<td>Ad network</td>
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**Paid $680m for 80%; bought 20% for $5m in 2006
Although access to data and reach are vitally important to the industry, the recent flurry of consolidation attracted the attention of consumer advocacy groups and regulators.

Privacy Issues

Many of the targeting techniques used online raise have raised privacy issues because they are relatively new technologies that draw directly on data that users provide through their usage of a medium. A study released in March 2008 by TNS and TrustE found that 71% of respondents know that companies track their Internet use in order to send them targeted advertising, and 57% of those respondents said that even if their histories were anonymous, they were not comfortable with the practice.\(^{40}\)

There is also research to suggest that the “clickprint” is not as anonymous as may have once been thought, even if there is no personally identifiable data. Although it was not tested on a large scale, a recent academic paper found that it can take as little as 3-16 sessions to identify a unique individual based on their clickstream, the number increasing the more unique users visit the site. In 7 sessions they could identify individuals with 86.7% accuracy, and 99.4% accuracy in 51 sessions.\(^{41}\)

Based on interviews and press reports, most people in the field seem to feel that the privacy questions around this type of data collection in general, and behavioral targeting in particular, are still somewhat undefined, and that the only completely universal parameter is that personally identifying information, such as name or address, should not be collected without the express permission of the consumer. At the


time of this writing, there also seems to be a general move by the industry to not target ads based on potentially sensitive web surfing and search activities, particularly around certain health conditions.

The industry is taking steps to police itself to avoid government intervention and poor customer relations. Many ad networks belong to at least one of the several self-regulatory organizations like the NAI or TrustE. Still, the Federal Trade Commission (FTC) did become involved last year when a complaint was filed by a consumer protection group, leading to a “town hall” meeting with representatives from the industry, a call for public comments, and a document outlining some proposed self-regulatory principles. 42 They included:

1. Providing consumers with clear disclosures and means of opting out if their data was being collected for ad targeting purposes.
2. Retention of consumer data only as long as necessary to fulfill legal and business needs.
3. Adherence by companies collecting data to the terms users agreed to when the information was obtained.
4. Obtaining express permission from the consumer to collect any “sensitive” data for targeting purposes.

The Commission also asked for public comment on issues ranging from what should be considered “sensitive” data to what appropriate data retention periods might be, to what other purposes collected data could be. 43

States are moving towards regulation to protect consumer privacy as well. There is currently a bill pending in New York that would enforce regulation similar to the NAI’s self-regulatory principles, which

43 Several organizations, including the IAB, responded to the FTC’s document in April 2008, arguing, among other things, that many of the proposed parameters were already being implemented, but that others were too broadly defined and thus threatened the ability of publishers free content online.
have been place for several years and have been adopted by the major ad networks. Industry associations are lobbying against the bill, saying that it threatens the ability of publishers to continue to provide free content online.\textsuperscript{44}

Privacy issues are critical, and will shape practices in the years to come, however they are so new it is difficult to say at this point what incentives or assurances consumers, advocacy groups, and regulators will need to be willing to embrace targeting moving forward.

\textbf{Decline of the Banner?}

Much of the ecosystem was involved with developing, targeting, and paying for banner advertisements, a popular format across all types of sites that borrowed heavily from print media. In a 2004 study by Dynamic Logic, banner ads had among the most positive scores among consumers surveyed, who strongly favored less intrusive ads online; ads, like pop-ups, that mimicked the intrusive techniques of television got strong negative reactions,\textsuperscript{45} possibly because they are not in keeping with internet culture\textsuperscript{46} and the consumer’s expectations and goals when they use the web.

However, the future of ubiquitous banner has been called into question. The primary reason for the shift: there is limited evidence that they actually work.


\textsuperscript{45} Plummer, Joseph; Rappaport, Steve; Hall, Taddy; Barocci, Robert (2007), p. 82-3.

For example, Stephen Jenvey, an executive at a large online financial services company explained, a recent review of clickthrough data and customer surveys led to some major spending changes around his firm’s use of banner ads:

“We tracked clickthroughs and began to do some detailed research as to how [and why] customers opened accounts with our company…and found it had a lot to do with our brand and with the press that people read about us. Banner ads were really not that effective. The irony was that paid search generated about 80% of our leads, yet we only spent 15% of our budget on it. The banner ads generated under ten percent of the leads, yet they accounted for about 70-75% of our budget. It was like the 80-20 rule, but in reverse.”

In response to their findings, the firm has shifted its spending into search and targeted, cross media campaigns with more local and paid and organic search.47

Ian Shaeffer, whose agency, Deep Focus, executes many marketing campaigns using social networks had a similar experience with banner ads in a very different context and with a very different target audience:

“We found for the most part that hypertargeting with traditional ad units, banners, no matter how targeted you get, it’s still not pulling the metrics that would come close to being defined as effective. People just tend to not click on banner advertising on social networks, particularly ones that they think will take them elsewhere.”48

Of course, part of the question is what the metric for success should be. In the next section, the validity of a click as a metric is discussed in more depth, however a bigger question for the industry might be what exactly is a banner ad intended to do.

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47 Interview with Stephen Jenvey, Large Online Financial Services Company.
48 Interview with Ian Schaeffer, Deep Focus.
Some people say that banners and other display advertising are a way of branding, and that the key metrics for a banner ad campaign should not be clicks, but elements like ad recall, brand favorability, and purchase intent. Data is often gathered on these metrics online through short surveys, as shown in the screen capture, on the left. For this particular instance, banner ads for one of these brands were running on the site when the survey appeared.

Screen capture of brand recall survey, completed by the author April 2008 on iVillage

Buying vs. Branding-
Searching for the best use of the online channel

In almost all of the interviews conducted for this paper, a key question, directly related to the potential decline in banner advertising came up: if the Internet is best as a direct response or buying medium, or as a relationship building and branding medium.

To some degree, it depends on the product. Differences in product consumption patterns, channels, refill rates, and the amount of information seeking most people want to undertake before making the purchase have an impact on the online strategy used. CPG marketers for example, are not expecting to sell their product online, but their approach to online marketing reflects how the product is bought and consumed.

49 Interview with Sarah Welch, Mindset Media.
On the web, these marketers focus on getting their brand name and message out to potential buyers to reinforce and compliment in-store and television promotions.\textsuperscript{50}

Still, direct response has been the de facto dominant mindset, and it is the most logical framework to use when clickthroughs and online sales revenue were the primary measures of success. According to Sarah Welch of Mindset Media, the big spenders online are still the direct response marketers, as the targeting capabilities of the various ad networks are very useful to them, and make sense as part of a direct marketing plan.\textsuperscript{51} Most marketers, according to digital media planner Andrea Millett, think of television as the medium for reach, print as the medium for engagement, and online as the medium for increased efficiencies and consumer action; brand building is still not considered by many to the Internet’s strength.\textsuperscript{52} Targeted advertising to facilitate research is somewhere in between direct response and branding, although promotions like coupons, or options to contact a store or dealer can often be traced to an eventual sale, a technique that seems to be particularly for consumer durables and other products that are often heavily researched online prior to purchase and have longer consumption cycles.

Display ads are usually considered to be the better brand builders, although research by McKinsey found that paid search is almost equally as useful in branding online.\textsuperscript{53} Still, strong branding, likely through a variety of channels, is certainly an important element to achieve strong showings in search. A recent academic study argued that brand experience in some capacity was a “preliminary condition” to online shopping and participation\textsuperscript{54}, which seems to be the case when we look at the top 10 search terms by

\textsuperscript{50} Interview with Jonathan Sackett, Arnold.
\textsuperscript{51} Interview with Sarah Welch, Mindset Media.
\textsuperscript{52} Interview with Andrea Millett, Media Contacts.
\textsuperscript{54} Ha, Hong-Youl and Perks, Helen (2005). P. 439.
category from September 2007 in the chart below. As the darker bars show, most of the top search terms are brands, not general keywords; for example, people tended to search for the commercial name of a drug over the condition that the drug was designed to treat.

However, there is largely unexplored, greater potential for branding online that in some ways bridges the gap between these two mindsets and enables consumer packaged goods (CPGs) and a broader range of products and services to use targeting technologies. The interactivity that the web offers could be thought of as a powerful branding tool, enabling an ongoing conversation with consumers through a variety of channels. In Avenue A/Razorfish’s Digital Outlook Report, considered by many in the industry to be a strong predictor of upcoming trends, a senior executive argued that, “How users engage emotionally with your products and services through digital channels will define your brand.”

![Analysis of top 10 search terms by category](image)

**Analysis of top 10 search terms by category**

Flowers & Gifts
News & Media
Net Communities & Chat
Travel
Entertainment
Food
Beauty
Health


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For his clients, Ian Schafer uses the Internet to create engaging experiences and foster long-term relationships with loyal consumers, calling the Internet the “ultimate attitude shifting, branding vehicle”.

And, although certain metrics applied in the direct marketing space, such as cost per action (CPA) may not be as meaningful in the context of a branding campaign, engagement metrics, discussed in more depth in the next chapter, might.
PART II
VITAL SIGNS: METRICS AND PRICING

Metrics and pricing of targeted online ads are important topics, because how advertisers buy and measure their media is a reflection both on what they hope to achieve with it, the level of risk in the expenditure, and the value that they place on each potential exposure or sale in the medium. Advertisers flocked to the web because it was supposed to be more accountable, measurable, and effective than mass media. Although that may in fact be true, it is still a new medium with completely different possibilities and opportunities that are challenging everyone in the ecosystem to define best practices and consider the long-term implications of increased customer involvement and control on the bottom line.

One executive described the changes in metrics as a shift in the discussion from impressions, to clicks, to carts, to costs per action\(^\text{56}\), and now to engagement and affinity. Although the industry began by using measures similar to those in mass media advertising like cost per thousand impressions (CPM) and cost per customer (CPC), a slew of additional measurements have surfaced that attempted to capture the breadth and depth of online activity and the accuracy...

of targeting techniques. As metrics evolve, so do pricing models and concepts of what targeted online advertising may ultimately be best for. This section will investigate how campaigns are being measured, how ads are bought and sold, and look at the different measurements available.

There are four types of metrics to measure any online advertising, illustrated in the diagram above: reach and impressions, clicks, costs per action, and engagement. The diagrams below, adapted from work done by Frederic Bien of AdBuyNet\textsuperscript{57}, help to illustrate the risk profiles of advertisers and publishers in the online advertising arena.

The first illustration shows the risk profiles of the advertiser and publisher depending on the different metric used to buy and evaluate a campaign. Risk profiles are linear, illustrated with the straight dotted line for the advertiser and the dash and dot line for the publisher, when content and creative is not factored in. Once the other factors are accounted for, the potential risk profiles expand and become non-linear for both parties, as shown in the figure below.

\textsuperscript{57} The author gratefully acknowledges Frederic’s contributions to this section.
Text ads, used in search marketing and usually measured by cost per click (see below), offer a “win-win” situation for both parties, as they share a goal – maximizing the number of clickthroughs – and their incentives are therefore aligned.

The figure below shows the same diagram, but this time illustrating the range of possible “win-win” deals for both advertisers and publishers for brand and direct response advertising by metric. Although advertisers ultimately bear more risk for brand ads because the outcome is usually delayed and not necessarily connected to the same medium, publishers will ultimately bear more risk for direct response-oriented ads. This is also reflected in the pricing, which would increase as we move from the left to the right on the x-axis.

Source: Frederic Bien, AdBuyNet
The next part of this chapter will look at each targeting type and the associated metrics in greater detail.

**Reach and Impressions: CPMs and branding online**

The concept behind measuring a campaign by reach and impressions is drawn largely from mass media, particularly television, where impressions have been the foundation of ad pricing for decades. The metric, CPM (cost per thousand), is an important standard for buying internet advertising, particularly among brand marketers. The idea is to cast the net relatively wide, dividing the cost of placing an ad by the number of people (in thousands) who see it, and comparing the return on investment of those costs by looking at them against changes in sales, which presumably increase as consumers recognize the brand and are willing to pay for it. As in television, CPM rates are determined largely by the
publisher/broadcaster’s ability to attract a particular demographic that was thought to be a good target group of likely purchasers. Traditionally, in mass media, as Sarah Welch, COO of Mindset Media explains it, creative was used to further refine the targeting and really speak to the potential consumers, “act[ing] like a dog whistle to lift people with the right mindset and proclivities out from that mass”.

Creative still plays an important role in attracting audience attention, as we saw in the changes in risk profiles for advertiser and publisher when it was introduced in the model, above. Intuitively, online targeting, which can be done and measured in a wide variety of different ways, could potentially command a higher: in theory, it can reach a better pool of potential purchasers. However, because the audience online is so fragmented, spread over literally millions of sites, each potentially with dozens of pages, there are few sites that offer the same mass reach that television still delivers. Ad networks grew in part to help find the right placements from these millions of options, but Stephen DiMarco of Compete argues that traditional media planning techniques of buying for reach are still prevalent, focusing marketing dollars in the top 50 sites and inflating those CPMs, at the expense of less trafficked sites less supported by industry infrastructure, that may be as good or better targets. “They are sites that are big enough to warrant attention, but they don’t have professional sales teams,…the existing online media planning tools …don’t support them because they don’t have a big enough panel, so they’re overlooked by media planners.”

The other difficulty with CPM is that it can place risk disproportionately on the advertiser. Although this is also the case with television, until recently network guarantees were the only way of distributing risk between the advertiser and publisher. Online, there are many other options to account for audience response unique to the medium. A longtime but sometimes controversial favorite is the click.

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58 Interview with Sarah Welch, Mindset Media.
59 Interview with Stephen DiMarco, Compete.
60 Although at the time of this writing most television is still bought and sold on the basis of CPM, the so-called C3 metric, which measures commercial viewings during the original broadcast and the next three
Cult of the click

Clicks, or clickthroughs, are a de facto standard in online advertising, partly because it is a very intuitive metric for the medium, and partly because it is an easily measurable for both search and display advertising, even if it did not lead directly to a sale. The argument for it is that it is a “leading indicator” of interest in a product, somewhere between an impression and a lead level of engagement and a sign of interest from a consumer in a product.

In search marketing, the click has become the gold standard, an indication that someone is looking for your product and took steps to learn more, and is therefore a good prospect. Size of the audience for the results seems to be a factor determining the cost per click (CPC): Google, with 56.5% of U.S. search share can command a CPC rate of $0.88, up to seven cents more than MSN and fourteen cents more than Yahoo!. Considering that 10 billion searches were conducted in the U.S. alone in August 2007 and are set to triple by 2012, the market and the opportunities are considerable, especially in an area that aligns incentives of advertisers, publishers, the search engines, and consumers so effectively.

In display advertising, the click is a key metric, alongside CPMs, but there are two key issues. First, the value of a click for branding purposes is not clear. As one observer pointed out, “[a] click does not equal days of viewing on personal video recorders, is putting more of the risk on networks to attract and hold the audience advertisers are seeking.

61 Interview with Andrea Millett, Media Contacts.
63 AvenueA/Razorfish (2008), p. 10. The size of the audience is not the only factor; MSN has ~11.3% of the market and commands $0.81, while Yahoo! has 23.3% share with a CPC of $0.74. All figures for 2007.
a customer or any kind of engagement,” it may even be from someone who clicks by mistake or who might be curious, but have no interest in the product.

Second, those who do click are not promising customers. Earlier this year, a study by comScore, Tacoda, and Starcom raised some questions about the efficacy of a click as a proxy for even general interest from the online population or a sales conversion measure. The research found that just 6% of the people online we responsible for 50% of all clicks on display ads. Most of this group fell into the 25-44 age range, tended to be male, rarely made purchases online, and had household incomes under $40,000. Added to the fact that clickthrough rates on banner ads are considered acceptable if they fall into the 0.5-1.0% range, this was not good news for the click as a measure of brand advertising.

Joe Wilson of Turner explains the use of clicks as an accepted practice with acknowledged flaws. “While we know that [clickthroughs]…are not effective measures of awareness, it’s easy to understand, and it something that we have been dealing with for a long time and the sense, I believe, is that any limitations of the technique have already been factored into the pricing. So the assumption is that there is some limited amount of correlation that goes on, even though to my knowledge that correlation has never been proven in a rigorous study, so there’s this sense that the limitations have already been sort of worked out.”

Whether or not that shortcoming is part of the price, increasing CPCs for banner ads, and the largely unknown or unimpressive impact that they have over time are the primary reasons that companies are reconsidering their use, as we saw in Part I.

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65 Ibid.
67 Interview with Joe Wilson, Turner.
Cost per action: Tying media to outcomes

Clicks are a very appropriate measure for search marketing, as they align advertiser and publisher interests, but cost per action (CPA) metrics attempt to take the measure a little but further, and, as we have seen, put more of the risk on the publisher’s side. Because the risk is shifted, anecdotal evidence suggests that metrics based on cost per sale can yield very high prices for publishers who deliver customers, as discussed later in this section.

Metrics for conversions and sales are often cost based, evaluating expenditures necessary to get a user to perform a certain action. In buying advertising using these metrics, Frederic Bien explains, clients are looking for numbers of clicks or views that will convert into a certain number of leads (i.e. registered users) or sales. These relate most closely to the direct marketing concept of the web, and do not focus on scale so much as the cost of each sales-related event.

CPA metrics are a flexible approach that can be developed for whatever the objective of the campaign is, for example the cost per report download, account opened, sales lead, new customer acquisition, etc. As observed earlier in this section, as the CPA metric becomes more defined and more tied to a transaction, the price increases, making it a lucrative approach for publishers and/or ad networks who can deliver a highly targeted audience and, in so doing, keep their own maintenance and acquisition costs low.

Engagement: Harnessing the (other) capabilities of the Internet

The internet creates vast opportunities and challenges for brand marketers. The validity of CPM may be challenged in the medium, but there are also considerable opportunities to use the web to foster participation and interaction opportunities directly with consumers in order to differentiate the product.

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68 Interview with Frederic Bien, AdBuyNet.
69 Metrics commonly bought against include: CPL – Cost per lead; CPV – Cost per actual view, and CPS – Cost per sale. Ibid
and increase loyalty and brand equity as well as willingness to pay. In other words, brand marketers still care primarily about mass and reach, and use CPM, CPC and CPA metrics, but they also care about the depth and sustainability with a person’s relationship with a brand, or engagement, which is in many ways a more personal and individualized experience.

Engagement is a hot topic, particularly in television, as audiences continue to decline for networks. In researching how this topic is used online, it seems to mean similar things, specifically:

- Brand loyalty and repeat purchase;
- Interaction with the product and other customers around the product online; and
- Propensity to rate, review and recommend the product.

A recent report by Forrester argued that engagement is about developing customers who are also champions for the brand and recommend it to others, and a metric called cost per acquired advocate (CPAA) that incorporates measures for involvement, interaction, intimacy, and influence. In the course of the personal interviews, similar metrics to those mentioned in the Forrester study were discussed, including:

- Time spent with a branded property, website or widget.

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70 Interview with Stephen DiMarco, Compete.
71 The concept of engagement as a metric for television is a vast topic beyond the scope of this paper. For a discussion of the various efforts by the mass media, advertisers and agencies to define engagement, see Chapter 1 of: Askwith, Ivan D. (September 2007). “Television 2.0: Reconceptualizing TV as an Engagement Medium”. Cambridge, MA: MIT Comparative Media Studies Program. Last accessed April 27, 2008 at http://cms.mit.edu/research/theses/IvanAskwith2007.pdf.
73 Particularly interviews with Ian Schaeffer, Deep Focus and Stephen Jenvey, Large Online Financial Services Company, Ibid.
74 There is also a question of what this would be measured to; Steve Rappaport of the ARF suggested measuring time spent with the brand in absolute terms and relative to other similar or complimentary brands and their experiences. A related concept is Share of Voice (SOV), which attempts to quantify how much time consumers are spending with the brand relative to others in a specific medium. For more on SOV from an ad network perspective, see Advertising.com (no date). "Measuring an Ad's Impact with the Share-of-Voice Metric". Last accessed April 26, 2008 at
- Volume of related content accessed on multiple sites or platforms
- Search keywords used (as discussed in the previous section)
- Frequency of visits
- Number of forwards of coupons, promotions, or product information to social networks
- Embedding of content on a blog or social networking site
- Production of user generated content (UGC) about the brand (i.e. blog entries, video, comments)
- Overall product satisfaction
- Overall brand recall

An even simpler engagement metric was used recently, when Publicis and Starcom agreed to a deal where the metric is cost per interaction with a banner advertisement for a national brand of waffles on a children’s website, shown in the graphic below, where users would need to actually interact with the ad for it to count as an impression.  

Yet another related concept is percent reach, which measures the percentage of people engaging with a brand relative to all others using the same medium at a given time, difficult to measure online; see Plummer, Rappaport, HallBarocci, Robert (2007), p. 34.

Screenshots of Waffle Ad

Before user mouses over

After user mouses over; interacts by clicking on the “go!” button

*From Kidzworld.com*

Engagement metrics relate specifically to behavioral targeting in a fundamental way: knowing how key consumer segments have learned about, interacted with, and promoted the brand would likely come from the same technology that is used for behavioral targeting, and potentially from an ad network as a supplement to brand awareness and recall studies. Identifying those segments and being able to serve them appropriate ads to encourage greater engagement and promotion may also yield an opportunity to build a closer virtual relationship with the best customers online.

It also helps address what Sarah Welch of Mindset Media identified as an important challenge for brand marketers: “how [to] … reach mass groups of people that are likely to be interested in their product in the
longer tail.Engaged consumers could help tap into those segments that were difficult or even counter-intuitive for marketers to reach.

Of course, all of this begs the question: what do advertisers and agencies want in terms of metrics for targeted online advertising initiatives, and are they getting it?

**Who’s counting?**

In the personal interviews conducted for this paper, many people remarked that defining metrics in a meaningful way is highly dependent on clear objectives that relate to the business goals, and that few organizations have really worked out how developing a presence online supports those larger objectives. Overall, advertisers are seems to be satisfied with some of the results, but effective measurement and goal setting is harder than it looks.

Return on Investment (ROI) is general metric used by many organizations to measure their total ad spending, and involves calculating the increase in sales as a result of ad spending. Advertisers, it seems are generally happy: 72% responding to a recent study were happy with the ROI they had achieved with online advertising. This suggests a trend towards greater confidence; a 2004 survey found that 80% of senior marketing executives were dissatisfied with their ability to tie marketing activity to profits.

However, another study found that more than half of current online advertisers saw insufficient metrics as a barrier to their presence in the medium, a significantly higher percentage than among non-advertisers, suggesting that, even though there are a multitude of possible metrics, identifying the right ones pose a

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76 Interview with Sarah Welch, Mindset Media.
significant challenge for these early adopters of online advertising.

In any case, 72% satisfaction is not optimal, and agencies know it. In a different study last year, more than 60% of agencies, said that effective measurement campaigns would be “a key success driver” in 2008. In the same study, 47% said that measuring effectiveness across media would be their “greatest challenge”.  

Part of the story may be in what they are measuring, as shown in the chart below, from Jupiter Research. Clickthroughs are by far the most common, with agencies more focused on conversions and sales, and advertisers more focused on engagement metrics.

<table>
<thead>
<tr>
<th>Measuring</th>
<th>Advertiser</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clicks</td>
<td>91%</td>
<td>93%</td>
</tr>
<tr>
<td>Conversions</td>
<td>65%</td>
<td>84%</td>
</tr>
<tr>
<td>Online sales</td>
<td>55%</td>
<td>73%</td>
</tr>
<tr>
<td>Engagement metrics</td>
<td>47%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Does this need to change? Tracking of engagement metrics by advertisers suggest that they have some value, particularly in their long term marketing plans. Agencies seem to be more focused on more direct transactional measures, possibly because they are expected to demonstrate short-term results. The ubiquity of clicks likely reflects both the ease of measurement and the high level of participation among agency clients in search marketing campaigns.

Still, the industry practice is slow to change. Terry Angelos of TrialPay has found that although display campaigns have the largest budgets they are the "least effective (relative to other online advertising) by

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82 Ibid. Defined as times spent, videos viewed, number of friends, number of uploads/comments.
any measure\textsuperscript{83}, while campaigns focused on facilitating transactions are consistently the least well funded.\textsuperscript{83}

**Where to next?**

It is hard to say what the internet will look like in five or ten years, or how advertisers will use it to promote their brands. However, to reflect the potential of the medium, as well as make better budget allocation decisions, there are a few key metrics that need some rethinking.

Author Nick Wreden argues that now, in marketing, [a] primary metric will be the depth, length, and profitability of customer relationships.\textsuperscript{84} If this is the case, we need a new concept of customer lifetime value (CLV). To address the sustainability of consumer relationships, as well as the value that customers can create for companies online. Engagement could be conceptualized as an extended Customer Lifetime value (CLV) metric., but capturing elements beyond the standard version that most propose, such as the value of positive word of mouth on and off line, as well as development of content that sparks other consumers’ interest and boosts their purchase intent.\textsuperscript{85}

Another key concept that needs rethinking is conversion rate, a topic of particular interests to lead generation firms like TrialPay. Conversion rates, standardized versions of which are used in CLV equations as acquired customers divided by prospective customers, do not capture a key piece of information: the value of that particular customer. As Terry Angelos and I discussed in our interview, there is a considerable difference and return on a customer who visits a site once and buys a sweater,

\textsuperscript{83} Interview with Terry Angelos, TrialPay.
\textsuperscript{84} Wreden, Nick (2005). *ProfitBrand: How to increase the profitability, accountability, and sustainability of your brand*. Sterling, VA: Kogan Page, p. 21.
never to return, and a customer who buys two sweaters today and returns every month for years down the road. Determining the key segments, by demo, psychographic profile, shopping style, decision point, and/or geography, and targeting them with offers and opportunities to interact that they want has powerful implications for companies, and measuring both the CLV and the true value of a conversion rate more effectively would go a long way to help in the decision process about which media buys to make, especially which segments to target and through what channels, online and off.

Ultimately, further investigation of these elements by ad networks, advertisers, and agencies would help everyone to target more effectively, eliminate waste, and balance risks and rewards.
PART III
INNOVATION AND EVOLUTION

This section is about the next five years – how targeted online advertising is changing, where innovation is and will be happening in the medium term. For this part of the research, I asked experts I interviewed for their takes and reached out in LinkedIn, a social network, for help in identifying innovative companies or practices.

Overall, there was agreement that innovation could come from anywhere in the ecosystem, but that in the last several years the big ideas had come from small startup companies. Five areas for near-term innovation were highlighted in the interviews and research:

- Targeted video advertising;
- Localization;
- Segmentation through specialization;
- Rethinking of the ad agency’s role;
- New metrics.

In this space, the primary driver for innovation is finding segments of sites that are under-monetized and increasing the potential earnings through better targeting.

Origin of Innovation

Innovation in this sector might come from every part of the ecosystem. Although there was a diversity of opinion in terms of where innovation originated, about 45% of the experts said it came from start-ups and entrepreneurs, about 22% said it originated with Internet companies generally, and another 22% said that it came from throughout the ecosystem.
When interviewees and individuals who responded to my question on LinkedIn\textsuperscript{87} identified specific companies that they thought were doing innovative things in the targeted online advertising space, ad networks received all but one of the ten mentions, as shown in the table below:

<table>
<thead>
<tr>
<th>Organization type</th>
<th>Company name(s)</th>
<th>Innovation/Innovative practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networks/Online communities</td>
<td>Mint.com</td>
<td>Community management, targeting information to specific consumer groups, “non-advertising”</td>
</tr>
<tr>
<td>Ad networks</td>
<td>Mindset Media</td>
<td>Psychographic targeting based on distinct “mind sets” for targeted branding campaigns</td>
</tr>
<tr>
<td></td>
<td>Firstlight ERA</td>
<td>Contextual targeting based on analysis of whole text of an article/webpage</td>
</tr>
<tr>
<td></td>
<td>Lat49.com</td>
<td>An online “mapvertising” system that targets ads through online maps</td>
</tr>
<tr>
<td></td>
<td>Black Arrow (2)</td>
<td>Video targeting network that operates across multiple platforms</td>
</tr>
<tr>
<td></td>
<td>VideoEgg</td>
<td>Engagement based pricing for targeted video and rich media ads</td>
</tr>
<tr>
<td></td>
<td>Ad Buying Network</td>
<td>Optimization of mixed format online campaigns, re-integration of creative and media buying functions</td>
</tr>
<tr>
<td></td>
<td>Lotame</td>
<td>Targeting and segmenting of audiences across user-generated content and social networking sites</td>
</tr>
<tr>
<td></td>
<td>Demand Media</td>
<td>Targeting audiences through a collection of specialized “vertical” networks</td>
</tr>
</tbody>
</table>

What to Watch

The types of innovations in the table fall into five categories, many also specifically identified by the respondents as key areas for innovation and change in the short term.

Targeted video advertising

Video and rich-media advertising, particularly targeted video advertising, is still very much in its infancy, but was also seen as a growth area by several respondents as broadband penetration across the country increases. Early research has also shown that they may hold consumers’ attention better and be strong branding vehicles; a recent study found that online video outperforms static advertising on brand

\textsuperscript{87} See the “Methodology” section in the Introduction for an explanation.
awareness, providing a lift of 10% after only 1 exposure, and increasing scores on branding metrics such as message association, brand favorability and purchase intent.\textsuperscript{88} At the ARFs Re:Think conference in early 2008, Google presented findings that suggested that a 30-second commercial for a CPG performed slightly better in terms of influencing purchase intent if it was embedded in online content over being viewed in YouTube or shown on television.\textsuperscript{89}

However, there is still a great deal of experimentation going on in terms of the length, focus, ideal context or parameters on which to target, and format of video advertising. Because the technology is new, there is not yet an infrastructure to implement it on a large scale for most advertisers. There is also no broad industry standard in place for many formats, which enables experimentation, but makes targeting and automation problematic for publishers in some cases. As video and rich media ads gain in popularity, professional associations like the IAB will play an important role in developing standards and guidelines to create a common language and currency for marketers and publishers.\textsuperscript{90}

“Until then,” says Frederic Bien, “the industry is looking for an online video ad model that is genuinely effective and easy to implement across sites and networks. Once that is developed, there will be a strong need to produce videos quickly, as well as efficient placement methods and centralized reporting systems.\textsuperscript{91}

\textsuperscript{88} Plummer, Rappaport, Hall, Barocci (2007), p. 92.
\textsuperscript{90} Interview with Mark Kortekass, CBS Interactive.
\textsuperscript{91} Interview with Frederic Bien, AdBuyNet.
Localization

Geographic targeting has been around for some time, but localization has become a hot topic\textsuperscript{92} for marketers seeking to catch the attention and the patronage of consumers looking for information online to inform an offline purchase or inquiry, a function of particular interest to brand marketers. Most mobile advertising is not yet seen as a major growth area for many of the people I spoke with because it is such a personal device and there are cost constraints for consumers to be able to view many types of ads. Still, mapping software, games, local ads, and paid search were seen as viable ways to leverage the mobile channel in the years ahead.

Segmentation through specialization

A move towards increasing specialization as a targeting method seems to run contrary to much of the logic that drove acquisitions in 2007; targeting communities, even large communities, through specialized sites does not generate as much data for targeting purposes. However, marketers looking for a way to deliver more specialized content to a specific audience in the “long tail” of the web might find lower prices and better responses using this approach – and are already spending on specialized ad networks, social networking sites, and search engines.\textsuperscript{93} Data from Avenue A/Razorfish shows that the trend can already be observed in their clients’ spending is shifting to entertainment and community focused sites at the expense of portals, reflected in CPM increases of more than 30%, while portal spending grew just 7%.\textsuperscript{94} That said, some of the larger companies are creating broadly specialized portals to attempt to capitalize on this trend, such as Yahoo’s Shine site, targeted to women, that was announced at the end of March 2008.

\textsuperscript{93} Specialized search engines, for example, draw more intense may be more willing to buy. Plummer, Joseph; Rappaport, Steve; Hall, Tadd,y; Barocci, Robert (2007), p. 130.
Rethinking of the ad agency’s role

All advertising online is becoming increasingly multidisciplinary, and targeting effectively in the medium requires an understanding of both the creative and technical elements. However, this approach limits opportunities to innovate in a multi-disciplinary way online, and integrate online and offline advertising communication. As Jonathan Sackett of Arnold describes it, “We’re still having that right-brain, left-brain argument out there in the industry: the data’s more important, no, the creative’s more important, no, brand awareness is more important, no, direct response is more important, to me, it’s a hybrid of the four things.”

There is a significant opportunity for advertising agencies, which have both the creative expertise and experience across many different types of media to truly offer integrated campaigns to clients that draw on and measure exposure to advertising across different media. With the proliferation of user generated content and the increasing ability of consumers to rate, review and recommend products, there is also a need to be able to communicate directly with consumers through a variety of channels and understand the effects of this virtual word of mouth. Combining expertise in public relations, traditional advertising, creative, and analytics could be a powerful entity in the online media world.

New metrics

Despite the substantial changes in how media campaigns are conducted, there has not, to date, been much innovation on how they value activities that lead to an actual sale or in looking at acquisition cost relative to what a customer actually spends, or the value that they actually generate for the organization. As Terry Angelos points out, "I don't think it gets more profitable and measurable than sending someone a customer", yet corporations have been relatively slow to come up with a means of valuing that customer beyond the initial transaction. As discussed in Part II, now that there is much more data available about consumer activity, purchases, satisfaction, and preference, which can be used to generate offers, but also...

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95 Interview with Jonathan Sackett, Arnold.
96 Interview with Terry Angelos, TrialPay
97 Ibid.
and to better evaluate and plan campaigns. Metrics commonly used for decision-making, such as CLV and conversion rates need to be rethought in the context of the information that is now available about how much people buy, as well as the other ways that they generate value for the brand or the company. The payoff would be a better ability to segment and identify profitable customers, less waste in media spending, and likely better relationships with, and increased loyalty from, customers.

**Beyond 2013**

This section discussed how changes in how the industry approaches, segments, and values consumers in an effort to monetize the web most effectively will drive innovation in the next five years. The next part discusses how targeted online advertising might look in the longer term, beyond 2013.
PART IV

FUTURE DIRECTIONS FOR TARGETED ONLINE ADVERTISING

“The digital media business is no longer simply about buying ad space. It’s a discipline focused on distributing experiences – through social networks, videos, widgets and applications, branded content, and, yes, ad placements.”

Based on research and conversations with experts in different parts of the field, I think that targeted online advertising will change considerably in the next 5-10 years. There are four interconnected possibilities:

1. Targeted online advertising will no longer look like advertising as we know it
2. Consumers will control more of the relationship
3. Learning style could be incorporated into other targeting methods
4. Technological change could enable targeting based on unarticulated needs, not interpretation of user actions
5. The industry will continue to consolidate, creating new opportunities for newcomers

Targeted online advertising will no longer look like advertising as we know it

Although banners to enable a user to click through or an advertiser to generate impressions, they are still clearly ads, and tend, therefore to be tuned out, even if they are targeted. In the next 5-10 years, look for advertising that is not just advertising, and use the capabilities of the web closer to their full potential, and concentrated on providing the consumer with an online experience that helps them to achieve their goals rather than simply deliver a message. This approach goes beyond relevance: it’s not just about influencing a purchase decision, but about enabling interactions with the brand on a daily basis that make the consumer’s life better or easier and fit the context of the experience they are looking for online.

99 Interview with Steve Rappaport, ARF.
Some organizations have already successfully adopted that philosophy. Advertisers know that people go to social networking sites for a specific purpose and it is a very involved activity, and that knowledge has begun to shape the approach to advertising in this space. Ian Schafer of Deep Focus, reflecting on his work promoting products through social networks, observed that “[t]he more clever we get with the integration and the more utility we’re delivering with that information the more and more relevant the information the higher the performance of the ad.”

Andy Montfried of Lotame, an ad network that targets advertising on user generated content (UGC) sites, applies a similar approach. Because there is limited overarching context on a UGC site, as the content is generated by hundreds of individuals, he focuses on the verbs, what the consumer has come to the site to do (upload content, rate a product, view a video), as a targeting technique. By working with these motivators and preferences, ads can not only be relevant to a future purchase decision, but compatible with the user’s current environment, motivations and preferences, and therefore more likely to be noticed and considered in a positive light.

As technology and understanding of users improves, future ads could be targeted so precisely to the context of the user experience, and involving a number of tools including video and dynamic messaging that it is part of the overall experience the user is looking for. As advertisers and ad networks gain a better understanding of the needs and preferences of audiences, they will also create and serve syndicated content that complement the environment created by the site and work within it, similar to a Facebook application. This requires the use of multiple targeting technologies simultaneously, and more data to analyze to better understand the nuances of user behavior.

100 Interview with Ilya Vedrashko, Hill Holliday.
101 Interview with Ian Schaeffer, Deep Focus.
102 Interview with Andy Montfried, Lotame.
Therefore, the concept of the “branded utility” that act as both applications that make brands “genuinely useful to their customers, employees, suppliers and the people they touch”\textsuperscript{103}, as well as platforms for accomplishing whatever the user is there to achieve\textsuperscript{104} may also be an important form of advertising in the future. The convergence of media devices and increases in the capability of mobile devices will also create a need for branded utilities that can be used seamlessly on a variety of platforms by each user, to accomplish a variety of different tasks. Traditional ads may persist, but they will be a small part of an advertiser’s online media spend.

Consumers will control more of the relationship

For consumers, a tremendous benefit of the web has been the ability to access and compare information about vendors and pricing. Closely connected to the concepts of relevance and utility, the future will involve consumers having much more choice over what ads they watch. This may happen as a result of privacy regulation or not, the proliferation of social network advertising and the strength of word of mouth may tilt the industry in the direction of greater control. In addition, projects like OpenID, are creating conditions for users to create and use a single profile across the Internet, and a foundation for managing relationships with vendors.

This is not to say that other types of targeting will disappear, but users will have clearer opt-in and out options from a single source, and receive more offers and prices for products when they inform vendors that they are looking for a product, similar to the structure of a priceline.com or a lendingtree.com. These single profiles will also eventually enable users to customize information and pass it along to others in their various social and professional networks. Although advertisers may lose control of the spread of


\textsuperscript{104} Interview with Andy Monfried, Lotame.
information, they effectively outsource the targeting to consumers by advertising through the social graph.\textsuperscript{105}

\textbf{Learning style could be incorporated into other targeting methods}

Whether consumers are at the helm of relationships with advertisers and choose to provide information about their learning style, or data continues to be collected using the current BT methods, learning style could be a valuable targeting technique, which would leverage all of the targeting advantages of the web in terms of message and delivery, while helping people to conduct research on products in a medium that resonates with them.

There are many models of learning styles today, but one of the most predominant includes three types: visual, auditory, and kinesthetic. By observing the surfing behavior of people known to have these learning styles and combinations of them over time and across multiple media, behaviors of each group could be modeled and used to target advertising messages as well as the format of delivery.

Combined with psychographic and behavioral targeting, this could be a very powerful tool, drawing on predicted interests and behaviors online as well as gaining an understanding of how consumers will best receive the brand and its message as well as the optimal format to provide the advertising. Combined with the branded utility idea, this data about an individual user could help advertisers customize the utility by activating features and interfaces that best enable users to process and access information.

\textbf{Technological change could enable targeting based on unarticulated needs, not interpretation of actions}

Widespread implementation of semantic web\textsuperscript{106} may be some years into the future, but the ability to tag, query and access data in a common form has a great deal of potential for targeting advertising. With

\textsuperscript{105} Interview with Andy Monfried, Lotame.
\textsuperscript{106} Thanks to Stephen Jenvey for suggesting the possibilities of semantic web.
semantic web, a common structure for content would enable computers would be better able to interpret data on the web for humans, returning results that are relevant and meaningful in search and conducting tasks available to us online today, but executed based on the context and purpose of our request.107

The concept could be a powerful one when extended to user generated content, such as social network profiles, which lack a common nomenclature,108 to help read the data entered and come up with a full picture of who the person is, what to recommend to them, and how, rather than simply reading existing information word-for-word. It also has implications for search optimization, and would require advertisers to rethink strategies to encompass potential consumer understandings and expectations of the brand and products beyond the name.109

The industry will continue to consolidate, creating new opportunities for newcomers

If the industry continues to consolidate, in the next ten years we may see more partnerships and mergers among the ad creators, ad distributors and data managers, and ISPs.

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108 Interview with Greg Rogers, Tacoda.

Projected future ecosystem

- Consumers
- Marketers
- Media buying and advertising:
  - Media Buying Agencies
  - Advertising Agencies
  - Ad Networks
  - Portals & Search Engines
  - Research, Data Management & Software
- ISPs
- Ad distributors & data managers
- Publishers, Social Networks & Online Communities
- Public & Community Relations Firms
- Segment & Analytics Specialists
- Government
- Industry Associations
- Consumer Advocacy Groups
Provided that no regulatory restrictions are placed on these organizations, combining forces would give them access to the diverse set of talents, ranging from creative to data collection to analytics capabilities. Key opportunities if this occurs may be for firms specializing in public and community relations, primarily to work with customers online, but also to communicate with regulators and advocacy groups concerned about privacy.

There also may be an opportunity for firms offering insight into a particular segment and how it interacts with media on a variety of platforms, but also in cross-platform analytics, segmentation methodology, and media planning and optimization techniques.

The net effect for consumers of these changes will, in my opinion be positive overall and include:

- Improvements in the overall online experience in term of enjoyment and/or productivity
- Opportunities to approach vendors with offers and invitations more frequently
- More control over the types of offers they see, when and where
- Greater implications around what information they provide to marketers online in terms of how, when, and with what they are targeted.

The final section of this paper will identify key conclusions from the research, and identify areas for additional investigation.
Part V

Conclusions and Future Research

The ongoing evolution of online advertising has opened up many opportunities to better monetize the web, segment consumers more meaningfully, and provide a channel for consumers and marketers that is both for distribution and communication.

However, this new and uncharted territory presents many challenges in terms of protecting consumers’ privacy, developing meaningful metrics, maximizing the web’s potential as both a branding and direct response tool, and collecting, analyzing, and interpreting vast amounts of data to draw meaningful inferences from it. In the near future, we will see changes in how the industry operates in the form of increasing consolidation and opportunities for specialty, local and niche players, a greater focus on measuring the value created by customers, and a move towards targeting video advertisements.

Further ahead, targeting technologies will be used not just to sell products, but to fit within the context of the web user’s activity and goals to develop a longer term relationship and dialog with customers. The targeting will also become more sophisticated as the volume and type of data increase and new methodologies for increasing customer utility increase. Finally, changes in the architecture and functionality of the web offer unprecedented opportunities to understand and respond to customer needs and motivations.

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There are several areas for additional research that were identified in the course of writing this paper that were not available and beyond the scope of this project, but would add to the existing scholarship in online marketing and advertising. They include investigations of:
- how consumers interaction with advertising while seeking information on the web influences purchase decisions, particularly taking a qualitative/ethnographic or mixed qualitative/quantitative approach;
- the impact of online branding campaigns in combination with other types of media on key brand metrics;
- views of consumers on their privacy online and potential tradeoffs between privacy and convenience or utility;
- the difference in impact of an ad when targeted using different techniques (demographic, behavioral, psychographic);
- the reliability of collecting brand metrics online;
- methods of mobile ad targeting and how consumer use of mobile phones may evolve to make more advertising via mobile economically and culturally acceptable;
- investigations of banner ad efficacy in branding campaigns; and
- reviews of ad targeting technology and regulation outside the United States.
Appendix – Interviews

Thank you to those who contributed their time and expertise in the personal interviews:

Terry Angelos, Co-Founder, TrialPay
Mike Arauz, Strategist, Undercurrent
Frederic Bien, General Manager, Ad Buying Network
Andrea Millett, VP, Account Director, Media Contacts
Stephen DiMarco, Chief Marketing Officer, Compete
Stephen Jenvey, VP, Business Development, Large Online Financial Services Company
Mark Kortekaas, Chief Technical Officer, CBS Interactive
Sherill Mane, SVP, Industry Services, Interactive Advertising Bureau
Andy Monfried, CEO and Founder, Lotame
Penry Price, VP, Advertising Sales, North America, Google
Steve Rappaport, Director of Knowledge Solutions, Advertising Research Foundation
Greg Rogers, VP, Sales Strategy, Tacoda
Jonathan Sackett, EVP, Chief Digital Officer, Arnold (Boston)
Ian Schafer, President & Founder, Deep Focus
Ilya Vedrashko, Emerging Media Strategist, Hill Holliday
Sarah Welch, Chief Operating Officer & Co-Founder, Mindset Media
Joe Wilson, VP, Enabling Software, Turner Broadcasting
Appendix B – Interview Questions

These were the standard questions, modified slightly for each interviewee.

Could you give me an overview of how you/how you help clients tailor and target your/their message through the web?

Are there specific targeting techniques that you have found to be effective, or particularly weak?

Are there any targeting techniques that you have heard of and would like to try?

How do you know that targeted advertising has been successful?

What goals do you/your clients have for a targeted advertising campaign on the web?

How is targeted advertising online integrated with broader marketing campaigns?

Is there a single set of metrics that can be applied across the board? If so, what are they, and if not, why not?

If you could create a targeting tool or technique that would help you reach your customers better, what would it be able to do?

Which are the most effective parameters to use for varying ad content for individual users?

Going forward, what do you think the role of portal sites and social networks will be in targeting advertising and reaching consumers?

Where does innovation come from? Who is doing innovative things in this space now? What makes it innovative?

How do you think online ad targeting will look in ten years?
Appendix C – Works Cited


Greene, Michael; Riley, Emily; Scevak, Niki (February 6, 2008). *US Online Category Advertising Forecast, 2007 to 2012*. N.Y., N.Y.: Jupiter Research.


