

# Ross School of Business at the University of Michigan

## **Independent Study Project Report**

TERM : Fall 1998

COURSE : MKT 750

**PROFESSOR** : Thomas Kinnear

STUDENT : Russel D. Klein

TITLE : Internet Advertising : the new frontier in marketing for the 21st

Century



# Internet Advertising: The New Frontier in Marketing for the 21<sup>st</sup> Century

By Russell D. Klein MBA Class of 2000

A research paper submitted in fulfillment of the requirements for 1.5 credits, GRADUATE INDEPENDENT RESEARCH PROJECT FALL (B) TERM 1998, Professor Thomas Kinnear, Faculty Supervisor.

#### **Faculty Comments**

WeB advertising, an wear that is very fluid

Thus difficult to research.

GARDE: EX

Abstract:: Internet use has soared during the past four years. The World Wide Web will soon affect nearly every aspect of our lives. Marketers recognize that these trends present them with fantastic opportunities. However, major advertisers have so far been reluctant to commit significant resources to funding Internet advertising campaigns. This research report presents a framework for understanding the issues surrounding online advertising and offers a vision of how forthcoming changes will affect marketing on the Web.

Signature of Faculty Supervisor

Title

Some technology experts have compared the Internet to the American West in the early 1800's: a vast, uncharted territory where none of the 'old rules' apply, a place where just about anyone can stake a claim and become rich virtually overnight. Internet firms pride themselves on their outlaw cultures - even their CEOs refuse to wear suits. Countless numbers of Internet pioneers like Marc Andreesen and Jeff Bezos have struck gold when their companies opened for trading on the stock exchanges. Electronic commerce didn't exist a few years ago, yet dozens of new companies now blaze new trails everyday on the Web. Many futurists claim that the Web will soon affect nearly every aspect of our lives, from the way we communicate with our relatives to the way we buy groceries. Marketers recognize that these trends present them with fantastic opportunities. According to Denis Beausejour, a vice president at Procter & Gamble, the Internet is "the most important marketing medium in history." Nevertheless, Internet advertising still only accounts for a tiny fraction of total advertising expenditures in the United States. Given the virtually unlimited potential of the electronic frontier, why have major advertisers been slow to jump on the bandwagon? This report will attempt to answer this question and will present a framework for understanding the primary issues surrounding Internet advertising.

Internet sales have grown by more than 50% per year since 1995. Online businesses generated \$21.8 billion in revenues in 1997, far surpassing most analysts' predictions. In percentage terms, online advertising has also exploded during the past three years. The Internet Advertising Bureau (IAB) estimates that advertisers spent \$1 billion on online advertising in 1997, a quantum leap in comparison to the \$267 million

in advertising revenues generated in 1996.<sup>2</sup> Salomon Smith Barney expects Internet advertising expenditures to exceed \$2 billion this year.<sup>3</sup> However, many of the world's largest advertisers, including P&G, Philip Morris and Johnson & Johnson, budgeted less than \$3 million for Internet marketing last year. None of these firms rank among the top 20 Internet advertisers. In this report, I will analyze the rationale behind major advertisers' reluctance to commit more resources to the Web and I will explain what needs to change in order for the Internet to live up to its billing as the greatest marketing medium of all time.

#### REASONS TO ADVERTISE ON THE INTERNET

Companies choose to advertise for many different reasons. Some of the goals of advertising include creating awareness for new products, informing consumers of product features and benefits, assuaging buyer fears, building brand loyalty and reinforcing product perception. Good advertisements translate a brand's positioning statement into a persuasive and memorable message. Years of marketing research have indicated that the advertising medium significantly influences how consumers interpret advertising messages. As a result, it is essential for marketers to select media that will maximize target market exposure while reinforcing the intended message.

Robin Webster, a Senior Vice president at the Association of National

Advertisers, succinctly explains the benefits of the Internet as a medium for advertising.

She states that "this is the first medium that combines every single part of the marketer's job from awareness to information to transactions to customer service. It transforms

eyeballs to relationships." In fact, a single Internet advertisement can accomplish all of these functions at once. If a customer clicks on an Amazon.com banner that appears on the Netscape Netcenter homepage, for instance, she will be taken to Amazon's online bookstore where she can read book reviews, place orders, and interact with customer service agents. Consumers apparently enjoy the interaction provided by Internet advertisements. Fifty-nine percent of respondents to a recent IAB study indicated that they favor advertising on the web. This may be somewhat related to the fact that Internet advertising is a relatively new phenomenon. However, given that time is an increasingly valuable commodity, the favorable reaction to ads that allow consumers to seek further information or even complete purchases online is not surprising.

Interaction is not the only factor behind the growth of Internet advertising. Large advertisers like P&G typically devote 75-80% of their promotional budgets to television. However, the continuing decline in TV ratings has forced major advertisers to reevaluate their strategies. In the recent November sweeps period, Nielsen ratings for broadcast and cable TV fell by more than 8%. At the same time, many Internet Service Providers (ISPs) like America Online have struggled to accommodate the millions of new consumers who log on to the web each month. There are now more than 60 million Internet users worldwide, and this number is expected to increase dramatically in the next decade. As consumers spend greater quantities of time on the Internet and fewer hours watching TV, the incentives for online advertising will continue to increase.

The Internet also offers advertisers an unprecedented opportunity to segment their markets into small customer groups. Segmentation enables marketers to analyze the

varying needs, desires and purchase behaviors of their customers. It also allows companies to target customer groups with specific products or services that would most likely appeal to them. There are several reasons why the Internet offers a fantastic opportunity for market segmentation. To begin, web sites often cater to much narrower audiences than any other form of media. There are popular sites for nearly every hobby, political affiliation, career and religion on the planet. If you have an interest in a particular topic, it's a relatively safe bet that you can find extensive information on that subject on the Internet. Advertisers can take advantage of these niche sites by placing ads only on the specific sites most frequently visited by their target audiences.

The simple fact that it is relatively easy to collect accurate information on visitors to web sites also contributes to the high degree of segmentation made possible by the Internet. Whereas it is often difficult for mass media companies like NBC to determine their audiences' demographics, Internet sites have a variety of tools at their disposal to learn about their customers. Online companies ranging from Yahoo! to Travelocity require customers to obtain free login ID's (which they must use every time they visit these sites) in order to use most of their services. During the login ID registration process, customers must complete a survey that often includes demographic questions such as age, marital status, occupation, and purchase habits. The web sites furnish this customer information to prospective advertisers. Recently, many Internet sites have started using "cookie" technology to capture additional information on their customers. Cookies, which are small files placed on users' computers, enable web sites to gain insight on customer preferences because cookies track movement within and between

Internet sites. Carefully targeted online advertising can also be accomplished through other technologies. DoubleClick, one of the biggest Internet advertising agencies, uses servers to determine a site visitor's area code every time they visit a DoubleClick client's site. This allows DoubleClick to present ads to users based on their locations. Continuous advances in web site data collection technologies will undoubtedly further enhance the ability of online advertisers to segment their markets.

#### TYPES OF ONLINE ADS

I will briefly describe most common types of ads on the Web today:

- Banners: Banners, the most popular form of Internet ads, are relatively small boxes placed at the top or bottom of web pages. Banners combine text and graphics, both of which are often animated. If a user clicks on a banner ad, she will be transported to the advertiser's homepage.
- Buttons: Buttons are essentially mini-banners. They often contain logos, and they
  also link users to the advertiser's homepage. Banners and buttons account for a
  combined 58% of total Internet advertising expenditures.<sup>7</sup>
- Sponsorships: This is one of the fastest growing forms of online advertising.
   Advertisers who use sponsorships pay web sites to attach the advertiser's name to specific site content. For example, Advil sponsors <u>ESPN.com's</u> athlete injury update.
   Sponsorships comprise 37% of advertisements on the Web.<sup>8</sup>

- Interstitials: While interstitial ads only account for 3% of current Internet ad spending<sup>9</sup>, they are quickly gaining in importance. They come in two forms: small windows which 'pop up' while you browse web pages, and entire screens that appear when you move between pages. Interstitials can be extremely effective advertising vehicles in certain situations. In a recent study conducted by Intel and Dell, approximately 50% of customers who purchased a computer on Dell's web site upgraded their microprocessor when prompted by an interstitial ad from Intel that explained the benefits of faster processors.<sup>10</sup> Some Internet users, however, have complained that interstitials interfere with their web browsing experiences and that they often take too long to download over 28.8 modems. However, I expect interstitial ads to proliferate in the near future for reasons I will discuss in a later section of this report.
- Other Forms: There are many other forms on online advertisements. Several free email services such as Hotmail attach advertisements to their members' outgoing messages. In addition, print and/or graphics ads can be included in e-mail newsletters like *The Economist* magazine's "This Week in Business" update, which is delivered to subscribers' electronic in-boxes every Friday. E-mail messages can also be used for purposes like encouraging customers to buy a new product or to return to a web site they may have visited in the past. Prominent listings in search engines can also function as valuable advertisements for web sites. Portals like Excite not only charge for prominent listings based on keyword searches but also deliver banner ads that

roughly correspond with specific keywords. For instance, a search for "garage sale" might bring up a banner ad for <u>Onsale.com</u>.

In the final section of this report, I will explain why I believe that impending technological developments will shift emphasis away from traditional banner ads and towards sponsorships, interstitials and new forms of Internet advertising.

# THE USE OF INTERNET ADVERTISING TO INCREASE WEB SITE TRAFFIC

During the past three years, the primary goal of Internet advertising has been to increase traffic to advertisers' web sites. Advertisers mainly have used banner advertisements to create hyperlinks to their sites. Most of these sites have been aimed at promoting electronic commerce (web-based transactions) and providing detailed information about products or services. For instance, financial services companies like Bank of America have placed banner ads on numerous sites in order to direct consumers to the bank's online credit card application page. Ford has used Internet advertising to bring users to their site, which allows customers to conduct virtual "test drives" of Ford cars. Barnesandnoble.com, the online subsidiary of book retailer Barnes & Noble, regularly places smaller banner ads ("buttons") on CNN.com's homepage in an attempt to stimulate immediate purchases on its web site.

According to the IAB, computers, automotive products, electronics, travel, and financial services are still the predominate categories of Internet advertising.

CATEGORY	% OF INTERNET ADS		
Computer products	26%		
Retail, automotive, travel, electronics, toys	24%		
Financial services	13%		
New media	13%		
Telecommunications	9%		

Source: Internet Advertising Bureau, 2nd Quarter Summary, 1998.

Most of these products can be easily purchased online. Furthermore, some of these products require substantial research before purchase. Therefore, the advertisers in these categories are mainly focused on driving traffic to their web sites in order to enable their customers to research and buy their products online.

Do Internet ads that attempt to increase traffic to a web site make sense for companies that don't sell products or services online? In many instances, the answer to this question is 'yes' because online ads can enable a company to leverage the Internet's potential for relationship marketing. To better explain how this can work, consider how a fictitious real estate company called "Klein Realty" might be able to use Internet ads to deepen its relationships with customers. Klein Realty would use TV commercials and newspaper advertisements to promote its reputation for always looking out for the best interests of its clients; in order to elicit an emotional response, these ads might show happy new home owners in their beautiful new kitchens thanking Klein real estate agents. These ads would also feature prominently the Klein web site address and would encourage viewers to visit the site in order to learn more about Klein's superior services. Given that web addresses have become ubiquitous, Klein Realty would probably need to

place banner ads on a number of web sites frequented by its target customers in order to remind them to visit the Klein site. Once in the Klein Realty site, a visitor would first complete a brief registration form that includes his e-mail address. He would then not only be able to see pictures of homes currently on the market but would also be able to read reviews of Klein's services written by previous Klein Realty clients. Several days after leaving the site, he would receive a friendly e-mail greeting/advertisement from the company. The Klein web site provides value for customers, and it allows the company to form real relationships with them. However, the relationships might not have been possible without the presence of Klein's online advertisements and e-mail follow-up messages, which drive traffic to the site.

#### The Influence of Brands on Electronic Commerce

The top 10% of all companies engaging in electronic commerce, defined as selling goods or services on the Internet, account for more than 90% of all consumer sales on the Web. Despite the fact that there are hundreds of firms in nearly every major category of business listed in Yahoo!, ranging from flowers to financial services, *something* causes Internet users to spend 90% of their e-dollars in only a small handful of web sites. Do product differentiation, web site features, or price differences provide an explanation for this phenomenon? Considering Internet merchants in any given industry often sell identical products, we can rule out product differentiation as the cause. Given that innovative web site features can usually be copied very quickly by competitors and that price cuts can be matched virtually instantaneously, these theories don't hold water,

either. The only reasonable explanation is that brands matter just as much in electronic commerce as they do in traditional business settings. Brands give Internet users a roadmap to guide them through the vast array of choices which await them on the 'Net. The online bookstore industry provides a good example of the importance of brands to ecommerce. In a recent survey conducted by Gomez Advisors, a Massachusetts-based market research firm, Amazon.com did not score as well as <a href="Borders.com">Borders.com</a> in building customer relationships and it finished behind <a href="Barnesandnoble.com">Barnesandnoble.com</a> in site resources.

What is more surprising is that Amazon.com ranked "as the most appealing site for customers, even though bargain hunters could find cheaper prices at half of its competitors."

Amazon's early entrance into the online book business and its barrage of Internet advertisements has helped to create brand equity that will continue to give the company an advantage over its competitors.

There are two key implications for Internet marketers regarding the importance of brands in electronic commerce. The first is that e-commerce companies need to use advertising to build brand awareness for their products and services. The most natural place for them to advertise is, of course, on other web sites. This is precisely what the largest and most successful Internet companies have done. Amazon.com, for instance, has built brand awareness by placing button ads on many of the most popular web sites. Given the IAB's finding that even a single banner ad can significantly increase brand awareness for new products<sup>13</sup>, I expect Internet advertising expenditures by companies engaging in electronic commerce to soar in the next five years as online sales continue to grow. This, in turn, could lead to a shakeout in the electronic commerce sector as

increasing promotional costs make it harder for smaller, lesser-known companies to survive.

The second implication of the influence of brands relates to online advertising placement. The fact that the ten most popular Internet sites attract 23% of all Web advertising dollars suggests that the '90/10 'rule' applies to web sites as well as to electronic commerce<sup>14</sup>. In other words, approximately 90% of Internet users spend their time on fewer than 10% of all existing web sites. While <u>CNN.com</u>, <u>Disney.com</u>, Yahoo!, Netscape Netcenter, eBay and several other sites regularly attract more than one million visitors per week, many more sites get visited once in a blue moon (in Internet time, that could mean once per half-hour!). This means that where an online advertisement is placed is one of the most important factors in determining whether or not the ad will be effective. As Internet users spend less time surfing and more time visiting their favorite sites, competition will undoubtedly raise advertising rates on the Web's most popular destinations.

#### **Explanation of Click-through Rates**

A critical issue in advertising is gauging the effectiveness of a promotional campaign. Naturally, advertisers want to know if their messages are reaching their target audiences. For banner ads intended to increase traffic to a company web site, the click-through rate - the percentage of viewers who click on a given banner - is widely viewed as a good measure of an ad's success. I agree with this conclusion, with the stipulation that profitability should be used as the ultimate measure of the success of any

transaction-oriented, short-term Internet advertising campaign. I have provided the following hypothetical example to demonstrate how click-throughs could lead to profitability.

Fictitious example: University of Michigan Bookstore Internet Advertising Campaign	-
Total Page Views/Banner Impressions	3,000,000
Total Cost of Banner Ads	\$105,000
Click-throughs (3%)	90,000
% of click-throughs resulting in sale	10%
Average revenue per sale	\$30
Additional sales from click-throughs (avg.)	\$270,000
Cost of Goods Sold	\$125,000
Total Campaign Profitability	\$40,000

The click-through rate may be somewhat less important for electronic commerce companies that already have strong brand recognition among the general public. For firms like Amazon.com, Internet advertising could be undertaken as a form of "reminder" advertising, which can be effective even if does not lead to immediate purchase.

#### The Decline in Click-through Rates

One reason why some major advertisers may be reluctant to commit more resources to the Internet is the overall decline in click-through rates. As the Internet has grown, users have been bombarded with increasing numbers of ads for products ranging from modems to groceries. During the first two years of the World Wide Web's existence, click-through rates averaged approximately 3-4%. However, 21% of respondents (all regular Internet users) to a recent survey by Jupiter Communications indicated that they never clicked on ads. 51% of those surveyed stated that they rarely

clicked on banners. According to NetRatings, a web tracking service, average click-through rates for all banner ads on the Internet have plummeted even further this year. Average click-throughs dropped from 1.5% in May to 0.9% in July of 1998. There are several explanations for this decline. It could be partially attributable to the growing volume of Internet ads. Because banner ads, buttons and sponsorships can now be found in abundance on all of the most popular web sites, users may be less inclined to click on any given advertisement. It would take much more time today for users to click on the same *percentage* of ads as they clicked on two years ago.

A second explanation for the decline in click-through rates is that the initial novelty of Internet advertisements may have worn off. Another related possibility is that some consumers who clicked on banner ads in the past were not impressed with the web sites to which the ads directed them. As the Internet grew in popularity, many organizations rushed to develop web sites and advertisements for these sites without devoting much thought to consumer needs. A 1997 IBM "e-business" television commercial portrayed a corporate web site developer struggling to decide whether to use a spinning logo or a flaming logo; the developer paid no attention to what the site could actually do for customers. Judging from the lack of breadth and depth of most corporate web sites I visited from 1994 until 1996,1 believe that the type of behavior portrayed in this commercial was widespread. In summary, I assert that all three aforementioned possibilities have contributed to the drop in average click-through rates.

Although there are no easy remedies for declining click-through rates, there are several types of banner ads that tend to fare better than most. NetRatings has found the following three themes to be particularly effective:<sup>17</sup>

- 1) Contests: Banners promoting chances to win prizes like PalmPilots for visiting the advertiser's web site average click-through rates ranging from 2-25%.
- 2) Actions: Action-oriented banners, such as <u>Barnesandnoble.com's</u> ads that allow users to search for books simply by clicking on buttons located on the banners, tend to score well with Internet users. However, the IAB found that ads featuring the message "Click Here" are generally ineffective.<sup>18</sup>
- 3) Freebies: Americans like getting something for nothing, and the Internet doesn't seem to have changed this mindset. Banner ads offering giveaways have been very successful.

On the other hand, most Internet users loathe banners featuring excessive animation, humor and bright-colored graphics. Advertisers interested in following the latest trends in online ad features can purchase reports from Internet research firms like IDC and Dataquest.

I believe that click-through rate is not always the best measure of the effectiveness of an Internet advertising campaign. In fact, in the next section of this report, I will explain my view that hyper-linking ads to extensive web sites may be unnecessary and even counterproductive in many circumstances. In these situations, other measurements should be used to gauge the impact of a web-based advertisement. So when is click-through rate an appropriate concern for advertisers? The answer depends on the nature of the product being promoted. If a company markets a good or service which requires high levels of service and support or greater than average consideration before purchase, its web site could provide information which could add significant value for its customers. In this situation, it makes sense for the company to

use Internet advertising to try to increase traffic to its site. A cruise line company that features pictures and other information about its ships on its Internet site meets these criteria and should thus consider closely monitoring click-through rates for its online advertisements. As I mentioned previously, click-through rate is also relevant for a business that is attempting to encourage immediate online acquisition of its products or services through its web site. An example of a firm that meets this definition is Dell, which sells thousands of computers through its site every week.

#### CONSUMER BRAND ADVERTISING ON THE INTERNET

Consumer brands accounted for only 17% of Internet advertising revenues in the first quarter of 1996. By the third quarter of 1997, consumer brands had become the largest category of advertisers on the Web, accounting for 32% of total Internet advertising revenues. Nevertheless, no consumer packaged goods companies ranked among the top 25 Internet advertisers in 1997. There are several theories that attempt to explain why online advertising by these companies has grown slower than had been expected. Some industry analysts have speculated that the Internet is better suited for services than products. Others have concluded that the Internet is not a good vehicle for building brand equity for new products. Many advertising industry experts argue that these companies have not committed significant portions of their budgets to the Internet because they do not typically sell their products online; companies like P&G would risk damaging relationships with established retailers if they were to bypass retailers and sell directly to consumers on the Internet. Although all of these views have some merit, I

believe that the primary factors preventing large consumer brand companies from committing significant portions of their promotions budgets to the Internet are their concerns regarding advertising effectiveness measurement techniques and consumer privacy.

#### **Click-through Rates: Ineffective Measurements for Brand Advertisements**

A recent Internet Advertising Bureau (IAB) study concluded that high clickthrough rates are significantly less important for consumer brand companies than for firms attempting to increase web-based transactions.<sup>21</sup> Although some marketing professionals continue to use click-through rates to measure the effectiveness of all online advertisements, I agree with the IAB's finding. Given that few major brand companies sell their products on the Internet, it is not necessary for them to maintain extensive corporate web sites; large Internet sites for most consumer brands would likely produce few measurable benefits. The fact that several major consumer products companies have recently dismantled brand web sites due to their inability to attract visitors supports this theory. Therefore, there is currently little need for brand companies to direct consumers to their sites through online advertising. If online consumer products ads do not need to stimulate click-throughs in order to be successful, it follows that click-through rates are not the best measures of the effectiveness of these advertisements. It has always been difficult for brand marketers to determine if their intended messages have been communicated through their advertisements, regardless of the form of media used. Measuring online brand advertising effectiveness is no less of a challenge.

#### The Benefits of Online Advertising for Consumer Brands

Before I discuss the specific problems surrounding measurement of online brand advertisement effectiveness, I would first like to address the general question of whether or not brand companies can really benefit from advertising on the Internet. I believe that online advertising presents a fantastic new opportunity for consumer products companies to promote their brands. To begin, even simple banner ads or buttons without interactive capabilities can increase brand awareness, communicate product benefits, promote customer loyalty and encourage product trial. It has been shown that advertising on billboards and print publications can generate higher brand equity, and statistics from a 1997IAB study<sup>22</sup> support the conclusion that banner ads are at least as effective as printed promotions. The IAB surveyed 16,758 visitors to twelve of the most popular Internet sites, including CNN, Excite, Geocities and HotWired. The survey participants were exposed to banner advertisements for 12 different consumer brands on specific web pages within each site that participated in the experiment. Each user completed a short survey upon his or her initial site visit and then received a follow-up survey by e-mail several days later. The IAB observed a statistically significant 5% average increase in brand awareness (determined by whether or not the consumer is familiar with the brand) across the twelve tested products. The study attributed 96% of this increase to banner exposure and only 4% to click-throughs.

In addition, the **IAB** found that "Web advertising does have the ability to be stored in consumers' long-term memory."<sup>23</sup> The 9% average advertising awareness

decay rate observed in the study was similar to decay rates associated with television and print advertising; click-throughs boosted the decay rate by less than one-tenth of one percent. The IAB also determined that consumer brand banner advertisements resulted in a 17% average increase in brand-linked impressions. Because this indicator measures unprompted, top-of-mind consumer sentiments, it has proven to be an excellent predictor of sales in other media. The most surprising conclusion contained in the study was that a single additional banner exposure appeared to positively influence brand loyalty. The firm that conducted the study for the IAB, Millward Brown International, has found that one additional exposure to advertisements in other media rarely affects brand loyalty.

Empirical evidence also supports the theory that the Internet is an effective platform for consumer brand advertising. From the advent of the Web until earlier this year, most major online advertising contracts were based on revenue-sharing arrangements. For instance, in 1997 Tel-Save Holdings, a long-distance phone service, agreed to pay America Online up to \$100 million to market its service to AOL subscribers. <sup>24</sup> However, the deal's payment structure was structured like a commission in that AOL received a percentage of revenues for each new Tel-Save account generated through Tel-Save advertisements on AOL's site. The revenue-sharing model enabled advertisers to partially shift the perceived risk of buying online ads to the web sites hosting the banners. However, this trend has noticeably changed during the past year. According to Evan Neufeld, an advertising analyst at Jupiter Communications, consumer brand firms are "hitching their wagons for a longer period of time...and moving away from a model that is more explicitly tied to performance." Unilever, the marketer of

Helene Curtis hair care products and other major brands, announced in July that it would spend a total of \$40 million over the next three years advertising on Microsoft and AOL web sites. The only contingency specified in these contracts related to audience size (page impressions), which is a standard instrument contained in most advertising deals in other media. The move to "pure" advertising agreements that do not include commissions or stipulations regarding click-through rates would seem to indicate that consumer brand companies are increasingly confident that the Internet can serve as an effective mechanism for promoting their products.

#### **Measurement Issues for Consumer Brand Advertising**

In percentage terms, consumer brand spending on Internet advertising has grown by leaps and bounds recently. However, online advertising still only accounts for a tiny fraction of the total advertising budgets of firms like Unilever. A \$40 million deal over three years is small change for Unilever, which had a \$908 million domestic advertising budget in 1997. As I indicated previously, I believe that the lack of standards for measuring the effectiveness of most online ads (those not primarily intended to encourage click-throughs) has made major brand advertisers reluctant to shift significant resources from other media to the Internet. *The Wall Street Journal* recently commented, "A single measurement tool is seen as crucial if online advertising is ever to soar past its current puny level of around 1.3% of the advertising universe." The IAB brand effectiveness study produced excellent statistical results, but few if any firms can afford to conduct such surveys on a routine basis for each of their brands. Although many online marketers

have acknowledged that click-through rates are generally not very useful measurements for brand advertisements, the industry has yet to reach agreement on what constitute more appropriate measurement techniques. As a result, many different measurement "standards" have emerged as Internet marketing firms have promoted proprietary methodologies in an attempt to gain clients.

Why is the lack of uniformity in measurement standards a key impediment to the growth of online advertising? The short answer to this question is lack of trust. To begin, advertisers cannot be sure that their messages are being delivered properly. Web server problems occasionally prevent banner ads from being displayed on site visitors' computers, and online marketing firms have been unable to reach agreement on a single methodology to measure delivery failure rate. Information on the number of distinct visitors who view a particular ad, average length of time spent viewing an ad and viewer demographics is even less precise. Lack of trust is also endemic because it is extremely difficult for advertisers to independently verify the statistics they are currently receiving from online marketers. Although major web sites could, at least in theory, provide verification data to advertisers about the site visitors, web sites rarely track detailed user information due to the enormous computing power required to perform this task. The accounting industry provides a good example of the importance of standards in creating trust. Regulations require a corporation to hire an accounting firm to examine the company's books at the end of every financial year. All auditors must conduct their audits in accordance with Generally Accepted Accounting Principles (GAAP). GAAP provides a measure of assurance to investors that the financial statements produced by a

company accurately reflect the state of the company's financial health. GAAP also enables companies to evaluate services offered by different accounting firms because GAAP essentially guarantees that audits will meet certain minimum criteria. On the other hand, there is very little that can be done to stop Internet marketing firms from manipulating viewer statistics.

Although the debate over measurement techniques in other media has never really ceased, *generally* agreed upon standards such as Nielsen ratings for network television and Arbitron ratings for radio programs have been in place in traditional media for decades. As a result, corporations naturally feel more comfortable spending millions of dollars on these media because they have a higher degree of confidence that their ads will reach their intended target markets. In other words, "uniformity" of measurement standards in other media enables advertisers to have a better idea what they are getting for their money. Few advertisers can afford to risk allocating precious resources to promotions that cannot be measured, so their reluctance to shift large portions of their budgets to the Internet is understandable.

Whether or not a single set of Web tracking standards will emerge in the near future is uncertain. There are tremendous incentives for firms that provide Internet user statistics to promote their own proprietary methodologies - if a firm is eventually able to patent a process that sets the standard for measurement in the industry, the firm could capture hundreds of millions of dollars in rents. In fact, A.C. Nielsen Co. is attempting to duplicate its success in establishing a standard for television viewer ratings by forming a Web ratings division. Nielsen actually faces an uphill challenge in the Internet user

statistics race. Until recently, the two biggest players in this industry were Media Matrix Inc. and RelevantKnowledge Inc. Many analysts view the October announcement that these firms intend to merge as a sign that a single measurement standard is beginning to emerge. According to Rich LeFurgy, Chairman of the Internet Advertising Bureau, "Credible measurement is an essential building block for increased online advertising revenue. We need number that we can believe in, and the combination of expertise between these two companies bring audience measurement to a new level."<sup>28</sup> If the Media Matrix/RelevantKnowledge merger does not succeed in setting a standard, advertisers may decide to take the problem into their own hands. P&G recently hosted a conference attended by members of the Future of Advertising Stakeholders (FAST) coalition. At this meeting, members of the FAST coalition, which includes major advertisers, web site publishers, advertising agencies, and other industry groups, agreed on a need for Internet audience measurement standards and began work on drafting a set of "voluntary guidelines" for web tracking statistics.<sup>29</sup> Whether it will take months or years for a common methodology to emerge is not clear, but it seems likely that the number of competing measurement systems will continue to decline.

#### **Consumer Privacy Concerns**

In the recent box office hit "Enemy of the State", Will Smith plays a lawyer who has accidentally obtained a top-secret videotape. In an effort to destroy his credibility, the National Security Agency attempts to "dig up dirt" on him by prying into his private life. The movie suggests that the government has sophisticated databases that enable

investigators to learn about nearly every aspect of an American citizen's life within a matter of minutes. The government is not the only organization that can obtain detailed information on an American's personal life. In order to segment their markets and to design effective promotions, companies often need to obtain demographic and purchasing behavior data for targeted customers. There is no shortage of market research firms that can obtain such information for clients by analyzing credit reports, surveys, credit card transactions, voter registrations and other sources of customer data. Numerous consumer advocacy groups have expressed concern about the ongoing "invasion" of consumer privacy by Corporate America. These groups fear that the Internet could enable marketers to dig far deeper into customers'private lives than ever before.

According to Tom Hyland, the head of the PricewaterhouseCoopers LLP new media group, online advertisers have adopted "self-policing measures...in an attempt to preempt government intervention" in the Internet market industry. One of these measures includes the TRUSTMARK licensing program that employs independent auditors to monitor companies doing business on the Internet. A firm doing business on the Internet can only receive TRUSTMARK accreditation (which it can promote on its web site) if it complies with specific privacy guidelines. A coalition of technology companies including Netscape, AT&T and Microsoft has backed the Open Profiling Standard (OPS), which gives users the ability to determine what information they wish to release to web sites and online services. Despite the enactment of these self-policing measures, online marketers continue to develop new methods of learning about web site visitors. For example, DoubleClick will soon introduce an advanced cookies utility that

will allow its client network web sites to find users who visited their sites anytime within the past month. The software can locate users anywhere in cyberspace and can then target ads to these users in order to encourage them to return to the client's web site. It is certainly debatable whether or not this technique constitutes an unwarranted invasion of consumer privacy, but there is little doubt that such practices will continue to fuel the debate over proposed legislation that could place constraints on Internet marketers.

Many online advertisers have paid close attention to consumer privacy issues. In fact, I believe that concerns over privacy have limited their willingness to experiment with new advertising techniques on the Internet. Although the Web offers virtually unlimited creative ways of reaching customers, online marketers are wary of taking actions that could be perceived as violations of consumer privacy. Advertisers rightly fear backlashes that could result from such decisions. Steve Case, the CEO of America Online, probably heard AOL's "You've got mail" voice several thousand times the day after his company's decided to sell information on its members to advertisers and market research firms. AOL was flooded with angry messages from members complaining that the company had no right to give away "confidential" member information; as a result, the company quickly reversed its decision. Major advertisers do not want to risk offending customers, so they will likely restrain their Internet marketing activities until better standards for consumer privacy have been established by consumer and industry groups.

There are other ways that Internet advertisers could go about dealing with concerns over privacy. Web sites and advertisers could use education to inform

consumers that advertising pays for the content on their sites. They could accomplish this through a variety of mechanisms, including e-mail, an education section within a site registration form, or a short message on the web site's homepage. The other option for web sites is to make the benefits of advertising explicit for site visitors. Some popular sites like GeoCities have chosen this route. As a GeoCities member, I received an e-mail several months ago informing me that the company would soon include advertisements on my free GeoCities web site (GeoCities gives each member 15MB of free space for web site hosting). The message explained that if I wanted to keep my GeoCities homepage ad-free, I would be charged a \$4.95 monthly fee; needless to say, I chose to keep the ads. This emerging 'ads for access' model can not only help web sites addresses privacy concerns but can also enable them to effectively charge for content that may have been free in the past. According to Internet industry experts Watts Wacker and Jim Taylor, "Time really is money. So is attention. [With the ads for access model], you are being paid for your individual attention."<sup>31</sup> This model may serve to mitigate some aspects of the consumer privacy problem, but I believe that Internet advertising guidelines would still be useful in helping advertisers determine the appropriateness of specific types of Internet marketing practices.

#### DETERMINING THE VALUE OF ONLINE ADVERTISING

In deciding whether or not to advertise on the Web, there are several questions you should answer. The first question you should answer is: what percentage of my target market can I reach on the Internet? You should compare the demographics of your

customers to the demographics of visitors to specific Internet sites. According to eStats, the average Internet user is 38-year-old, college-educated male who earns approximately \$60,000. However, there are often wide demographic disparities among Internet sites; although the above demographic profile might accurately describe the average visitor to Microsoft's site, I would be willing to bet that the average visitor to the Better Homes and Gardens web site isn't a 38-year-old male.

If you are able to identify a number of sites whose visitors have similar characteristics to those of your target market, the next question you should answer is: what percentage of my profits come from Internet users? Despite the fact that Web surfers tend to be relatively affluent, they are also generally more knowledgeable than average consumers. This isn't particularly good news for some businesses, such as auto dealerships, because web-enabled consumers can often drive the toughest bargains due to the fact that the Internet offers extensive information on certain products. If Internet users contribute little or nothing to your bottom line, it may not make sense for you to advertise online.

#### **Cost of Advertising**

If a substantial portion of your target market regularly uses the Internet and significantly contributes to your firm's profitability, you should weigh the costs of online advertising against its potential benefits. Internet advertising rates are usually quoted in cost per thousand impressions (CPM). An 'impression' occurs whenever a user views a Web page containing an advertisement. If the web site does not rotate ads each time a

user accesses a given page while visiting the site, the impression is denoted only upon the user's first visit to the page. However, if the ads on a given page change each time the user accesses the page while visiting the site, each page visit counts as a new impression. CPM rates primarily depend on the type of web site selling the advertising space.

WebConnect, an Internet marketing firm, estimates that current CPM rates are as follows:

WEB SITE CATEGORY	CPM	
Women	\$42	
Travel	\$40	
Sports	\$34	
News	\$40	
Financial	\$44	
Computing	\$78	
Children	\$39	
Business Executives	\$65	

Source: WebConnect (<a href="http://www.webconnect.com">http://www.webconnect.com</a>)
Source: WebConnect (<a href="http://www.webconnect.com">http://www.webconnect.com</a>)

This chart seems to indicate that web sites targeting niche groups (i.e. business executives) and sites pertaining to goods and services that can be purchased online (i.e. financial services and computing products) command premium advertising rates.

Currently, average CPMs across all categories are currently approximately equal to rates charged by television stations. However, Internet advertisements may be substantially more cost-effective than TV commercials because web sites can reach much narrower audiences than most TV stations. In addition, eStats says "most sources predict CPMs to settle down to between \$5 and \$20 CPM in the next few years, largely due to [increasing] availability of inventory." 33

#### **Other Factors to Consider**

Once you have decided to advertise on the Internet and you have narrowed your choices to a few sites that meet your demographic and cost objectives, you should evaluate several additional pieces of information in order to help you determine precise locations and formats for your ads. Some of the factors you should consider are:

- a. *Number of site visitors per day:* Although larger, more popular sites work well for products and services that appeal to relatively broad audiences, smaller sites often charge lower CPMs and sometimes average much higher click-through rates for ads placed on their sites.<sup>34</sup>
- b. Average number of minutes visitors remain on site: It's generally the case that the longer someone sees an ad, the more impact it will have. Therefore, you should take into account the length of time that visitors stay on specific' sites. Sites with rich content, such as in-depth news coverage, often keep visitors on their sites much longer than search engines do. The portals have attempted to reverse this trend by offering services like online auctions and e-mail.
- c. Average time spent on specific pages within a site: Visitors usually don't spend most of their time on site homepages. It may make more sense to place your ads on pages one or two layers beneath the homepage if visitors stay on those pages longer. If visitors tend to move around very quickly within all areas of a site, you might want to consider placing interstitial ads in order to grab users' attention.
- d. Level of Interaction on Site: If there are specific features within a site that force user interaction, you may want to consider sponsoring those features. Excite's online financial center (e.g. stock portfolio tracking services) is a good example of a feature that require heavy interaction and thus makes for an excellent sponsorship opportunity.

When designing your ads, it is also important to keep in mind the site's layout and color scheme because viewers tend to disdain ads that appear to be 'out of place' on a site.

#### THE FUTURE OF INTERNET ADVERTISING

None of the major Internet research firms agree on how much they expect online advertising to grow in the next few years. While ActivMedia anticipates that total

Internet advertising revenues will exceed \$40 billion by 2002, eStats predicts a much more modest increase to \$8 billion.<sup>35</sup> Even the relatively low eStats figure, however, would represent an approximately 400% gain compared to projected spending for this year. I believe that several key trends will enable the Internet advertising industry to meet or possibly even to exceed this ambitious growth target.

#### **Exclusive Advertising Rights Deals**

The first of these trends is the recent explosion in exclusive advertising rights deals. In the past two months, several exclusive marketing rights contracts valued at over \$75 million apiece have been signed. In October, First USA, one of the nation's largest credit card issuers, agreed to pay Microsoft approximately \$90 million over five years for exclusive credit card marketing rights on most of the Microsoft network (MSN) Internet sites. Less than two weeks after the First USA deal was announced, Bank One (the parent company of First US A) signed a \$125 million multi-year deal to become the exclusive provider of banking services on Excite.com. Bank One will create a financial center that will allow users to open new accounts, check their balances and pay their bills without leaving Excite's homepage.<sup>36</sup> Given that most Internet users spend a large portion of their time browsing a very limited number of web sites, being an exclusive provider of a good or service on a top site could be extremely valuable. If these deals continue to proliferate, they will effectively limit the number of available advertising "slots" on the Internet. This, in turn, would likely boost prices for exclusive rights contracts as major advertisers compete for the marketing rights on the most popular sites.

Even though many companies are not yet convinced that Internet is a viable medium for marketing their goods and services, the proliferation of exclusive site marketing agreements could result in dramatically increased online advertising revenues. I expect many advertisers to sign deals simply to avoid the possibility of being shut out of future Internet marketing opportunities.

#### Site Redesigns to Promote Advertising

In a memorable episode of the hit NBC show "Frasier", sponsors of Frasier's talk radio show threaten to withdraw their advertising support unless Frasier agrees to make several changes in the format of his show. Frasier eventually acquiesces, but only after being told by his station manager that he would be fired if he refused to do so. Although advertisers won the battle in this episode, the truth is that they have very little control over content in most media. Recently, however, advertisers have discovered that web site publishers often welcome content and format suggestions from companies that advertise on their sites. This may be due to the fact that advertising is the primary source, if not the only source, of revenues for many sites. When Scott Adams, the creator of the Dilbert comic strip and the Dilbert Internet site, was asked why he had agreed to an advertiser's request to create a financial center on the Dilbert site, he responded, "The reasons are complicated, involving many philosophical and ethical issues. For the slower students, I can summarize it this way: They give us money. We like money."<sup>37</sup> The willingness of web site publishers to accommodate advertisers' requests may encourage companies that are frustrated by inflexibility in other media to advertise online.

#### The Effects of Increased Bandwidth

Some users have dubbed the Internet the "World Wide Wait." Using a 56k modem, the fastest modem currently available to most people, it can take over 10 minutes to download a 2MB file. Graphic-intensive pages also appear very slowly over conventional Internet connections. Although the Web can theoretically deliver CDquality sound and high-resolution video, these applications are not yet available to most Internet users due to the high bandwidth required to use them. Nevertheless, many companies have expressed great interest in using the Web to deliver multimedia-rich advertisements. According to Advertising Age, one of the clear sentiments that emerged from the recent FAST summit meeting hosted by P&G was, "We want it [the Internet] to be more like TV."<sup>38</sup> Despite the fact that the IAB has indicated that banners are often very effective, marketers widely criticize the small size and low click-through rates of most banners. Many advertisers would like to replace banners with innovative advertising formats that grab the attention of users, particularly for "low-involvement" products. P&G, for instance, has developed an online ad that first creates a 'virtual spill' across users' computer screens and then cleans up the spill with a Bounty paper towel.<sup>39</sup> However, Internet Service Providers (ISPs) and web sites have refused to run this ad because it takes up too much bandwidth. The good news for P&G and other advertisers is that high-speed Internet access could become available to a significant portion of Web users within the next two years.

Millions of Americans already use high-speed Internet connections. Many large companies link to the Internet via high bandwidth lines, and college students often have blazing fiber optic connections in their dorm rooms. However, the quantum leap in highspeed access will probably come from cable modems and xDSL technology. Cable companies are beginning to introduce Internet service via coaxial cable lines in certain regions of the country (approximate cost: \$35 per month). Meanwhile, telephone operators are starting to roll out xDSL, which operates on conventional phone lines (approximate cost: \$50 per month); Ameritech will initiate xDSL service in Ann Arbor next month. Both xDSL and cable modems offer connections that are orders of magnitude faster than 56k modems. Advertisers have lined up in support of these new technologies. ©Home, a cable Internet service, has already received advertising commitments from consumer brand companies like Levi Strauss & Go. and AT&T.<sup>40</sup> Some industry analysts believe that it will take up to 5-10 years for a majority of Web users to have affordable high-speed Internet access in their homes. However, even if these analysts are correct (I think the timeframe will be approximately 3-5 years), I would urge companies to begin running experimental multimedia-rich online advertisements targeted at business, cable modem and xDSL users as soon as possible.

Increased bandwidth will have additional benefits for online advertisers. It will enable greater use of creative ad formats like "live" banners. These advertisements, which require high bandwidth to run effectively, enable users to obtain more information about a product or service without leaving their current web page. For example, Hewlett-Packard has developed a live banner ad that prints out information about new HP printers

when users click on the banner. Gretchen Briscoe, a spokeswoman for P&G, explains that because a live banner ad is just "a banner at first glance, it's not intrusive. We're trying to push beyond traditional banners without alienating the customer." Increased bandwidth will also allow for the production of more graphic-intensive interstitial advertisements, which, in turn, will promote greater use of the 'ads for access' model of paying for web content; because users cannot bypass full-screen interstitials, they are a key element of the 'ads for access' model.

#### **Additional Trends**

The future of Internet advertising will be affected by several additional trends. The first of these trends is the rapid growth of ad-serving Web networks. These virtual networks function somewhat like network television companies: the network owners sell advertising spots for their web site affiliates and offer a wide variety of other marketing services, while the web site affiliates provide content. Network owners such as DoubleClick, Zulu Media and 24/7 Media have formed partnerships with many of the leading web sites, and their results so far have been quite impressive; the DoubleClick network already reaches 29.4% of worldwide Internet users. As ad-serving Webnetworks form partnerships with more and more sites, I believe that the networks will eventually affect the entire online advertising process, from ad design to effectiveness measurement tracking.

Advertisers will also need to prepare for the coming onslaught of Internet appliances. Many technology experts predict that the PC will cease to be the primary tool

for accessing the Internet in the very near future. Consumers can already check their e-mail and browse the Web from TV set-top boxes, new cellular phones and handheld computers like 3Com's Palm Pilot. An automobile computer with built-in Internet acces will debut early next year. These "network appliances" will provide many new possibilities for online advertising.

Increased bandwidth, exclusive marketing rights deals, ad networks and network appliances will undoubtedly create vast new opportunities for Internet advertising in the next few years. However, major advertisers will probably continue to treat the Internet a; an afterthought until marketers can agree on standards for measuring the effectiveness of online ads and can devise policies for addressing legitimate consumer privacy concerns. If these problems are solved, the Internet will likely become the cornerstone of the advertising industry in the 21<sup>st</sup> Century.

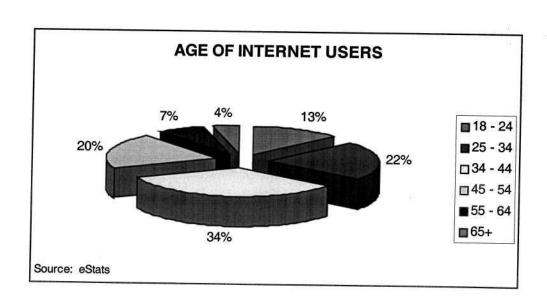
#### **EXHIBIT A**

Comparison of Projected Online Spending By Market Research Firm (in \$ millions)

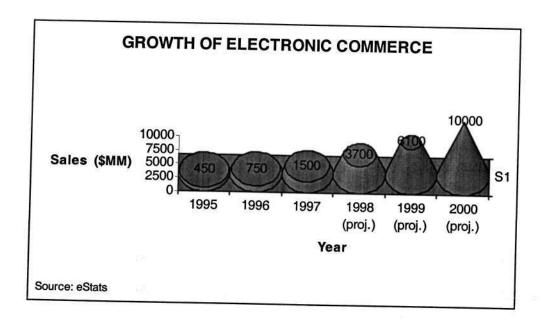
Year	1999	2000	2001	2002
IDC	2000	3300	NA.	NA
Forrester	1750	4100	5600	8100
Cowles/Simba	1580	2460	NA	NA
Jupiter	3000	4400	5800	7700
ActivMedia	4700	11200	23500	43300
IAB	NA	NA	NA	NA
Yankee Group	1820	2200	3800	6500
eStats	2200	3800	6500	8000
Global Internet Project	NA	5000	NA	NA

Source: eStats (http://www.emarketer.com/)

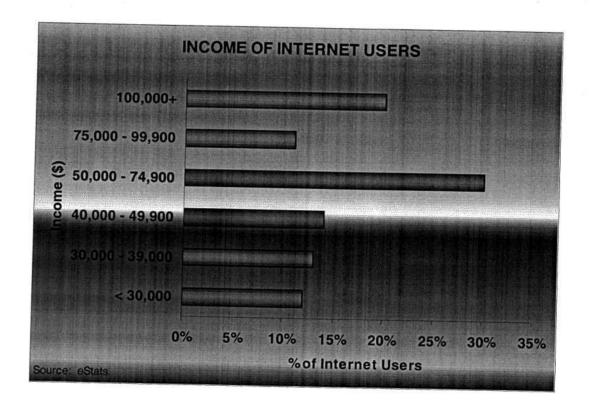
#### **EXHIBIT B**



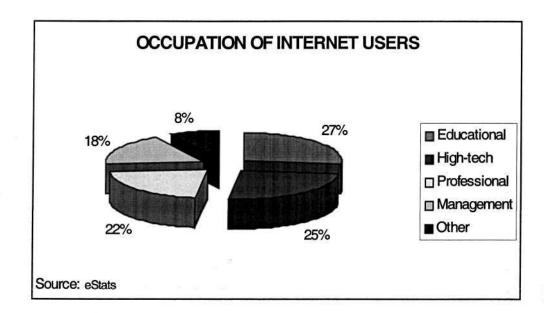
#### **EXHIBIT C**



#### **EXHIBIT D**



## **EXHIBIT E**



37

#### **Notes**

- <sup>1</sup> Horovitz, Bruce. "Summit will be 'defining moment of Net advertising." USA Today. Section B, page 1. August 17, 1998.
- <sup>2</sup> Hyland, Tom. "Web Advertising: A Year of Growth." Internet Advertising Bureau (http://www.iab.net/adevertise/content/webgrowth.html).
- Anders, George. "Wide Open Space: Internet Advertising, Just Like Its Medium, Is Pushing Boundaries," The Wall Street Journal. Page A1. November 30, 1998.
- <sup>4</sup> Briones, Maricris. "Plotting a course for Internet ads." Marketing News. Vol. 32, No. 20. September 28,
- <sup>5</sup> 1997 IAB Online Advertising Effectiveness Study: A Joint Research Effort of Internet Advertising Bureau and Millward Brown Interactive.
- <sup>6</sup> "CBS Wins Ratings Week, Month; Takes Lead in TV Season." Dow Jones Newswires. December 1, 1998.
- <sup>7</sup> "Internet Advertising Bureau (IAB) Announces Second Quarter 1998 Advertising Revenue Reporting Program Results." Internet Advertising Bureau. October 28, 1998. (http://www.iab.net/news/content/1998rev.html)
- <sup>8</sup> Ibid.
- 9 Ibid.
- <sup>10</sup> Lambrose Bateman, Katherine (New Initiatives Marketing Manager at Intel). Presentation delivered to the University of Michigan Business School High-Tech/Telecom Club. September 22, 1998.
- <sup>11</sup> Glazer, Patricia. Presentation on electronic commerce delivered to the University of Michigan Business School High-Tecch/Telecom Club. December 1, 1998.
- <sup>12</sup> Orwall, Bruce. "Amazon.com Leads in Appeal but Not Price, Survey Says." The Wall Street Journal. Page B8. December 11, 1998.
- 13 1997 IAB Online Advertising Effectiveness Study: A Joint Research Effort of Internet Advertising Bureau and Millward Brown Interactive.
- <sup>14</sup> Source: eStats, a division of eMarketer.com. http://www.emarketer.com/
- 15 Hansell, Saul. "Selling Soap Without the Soap Operas." The New York Times. Page C1. August 24,
- <sup>16</sup> Hamilton, Annette. "Secrets of Super-High Web Ad Click-Through." ZDNet Anchor Desk (http://www.anchordesk.com). August 19, 1998. 17 Ibid.
- <sup>18</sup> 1997 IAB Online Advertising Effectiveness Study: A Joint Research Effort of Internet Advertising Bureau and Millward Brown Interactive.
- <sup>19</sup> Hyland, Tom. "Web Advertising: A Year of Growth." Internet Advertising Bureau (http://www.iab.net/adevertise/content/webgrowth.html),
- Source: InterMedia Advertising Solutions (via TableBase online database)
- <sup>21</sup> 1997 IAB Online Advertising Effectiveness Study: A Joint Research Effort of Internet Advertising Bureau and Millward Brown Interactive.
- 22 Ibid.
- <sup>23</sup> Ibid.
- <sup>24</sup> Bransten, Lisa. "Microsoft's Deal with First USA Marks Shift in Internet Marketing." The Wall Street Journal Interactive Edition. Tech Center Section. October 28, 1998.
- 25 Ibid.
- <sup>26</sup> Source: InterMedia Advertising Solutions (via TableBase online database)
- <sup>27</sup> Quick, Rebecca. "Internet-Audience Trackers Agree to Merge Their Firms." The Wall Street Journal. Section B. October 13, 1998.
- ž8 Ibid.
- <sup>29</sup> Briones, Maricris G. "Plotting a course for Internet ads." Marketing News. Vol. 32, No. 20. September 28, 1998.

- <sup>30</sup> Hyland, Tom. "Web Advertising: A Year of Growth." IAB Advertising ABC's. Internet Advertising Bureau, 1998.
- 31 Koprowski, Gene. "'Ads for Access' Is a Model That's Drawing Attention." The Wall Street Journal Interactive Edition." On Line section. October 27, 1998.

  32 Source: eStats, a division of eMarketer.com. http://www.emarketer.com/
- 33 Ibid.
- 34 Ibid.
- 35 Ibid.
- <sup>36</sup> Press Release: "Bank One, Excite Accelerate Online Banking with \$125 million-plus Deal." Bank One Internet Site (http://www.bankone.com/).
- <sup>37</sup> Anders, George. "Wide Open Space: Internet Advertising, Just Like Its Medium, Is Pushing Boundaries." The Wall Street Journal. Page A1. November 30, 1998.
- 38 Maddox, Kate. "Marketers debate FAST's outcome." Advertising Age. Page 32. September 7, 1998.
- <sup>39</sup> Maddox, Kate. "P&G's plan: Jump-start Web as viable ad medium." Advertising Age. Page 1. August 17, 1998.
  40 "Marketers debate FAST's outcome." (Advertising Age).
- <sup>41</sup> Bulkelely, William. "Big Advertisers Embrace New Type of Web Banner Ad." *The Wall Street Journal*. Section B. October 22, 1998.
- <sup>42</sup> Snyder, Beth. "Media Matrix will track ad-serving Web networks." Advertising Age. Page 40. June 29, 1998.