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An evaluation on how keyword advertising affects Google search results

Tasnim Fidali
San Jose State University

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AN EVALUATION ON HOW KEYWORD ADVERTISING AFFECTS GOOGLE SEARCH RESULTS

A Thesis

Presented to

The Faculty of the School of Journalism and Mass Communications

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Tasnim Fidali

August 2006

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APPROVED FOR THE SCHOOL OF
JOURNALISM AND MASS COMMUNICATIONS

Dr. William Tillinghast

Dr. Richard Craig

Dr. William Briggs

APPROVED FOR THE UNIVERSITY

Abstract

AN EVALUATION ON HOW KEYWORD ADVERTISING AFFECTS GOOGLE SEARCH RESULTS

by Tasnim Fidali

This thesis examines how advertising affects Google search results. Based on the uses and gratification theory that suggests users use media to gratify their information needs, the study raises the question such as, how does the presence of advertising influence a user's online experience? How does Google balance the need to satisfy its users and at the same time generate revenue?

Research reveals that users are becoming more tolerant towards the presence of advertising on Google search results because of simple and non invasive ads. Google has been able to generate more than half of its current revenue by selling advertisement and allowing the market place to set the price of search keywords.

In the market place, corporate advertisers have a two-fold advantage. They rank higher in search results because a large number of sites link to them and possess the ability to buy various keywords. Thus small business advertisers have opted to bid on specific phrases to generate traffic to their web sites rather than compete with corporate advertisers.

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Introduction

The Internet is a unique and multifaceted medium of communication. In this time and age, people use the Internet to work, shop, talk, read, and write. The Internet has become an integral part of everyday life. It is difficult to consider life without Internet access or remember how life was before its dawn almost more than a decade ago. The ability of the Internet to funnel all forms of communication such as advertisements, news feeds, magazine, bulletin boards, television, and entire libraries is an opportunity many businesses and advertisers are taking advantage of today. The Internet has evolved to become another means for companies to target potential customers.

The possibility of bringing together different types of information without the traditional boundaries of time, space, and money is unique to the Internet and unlike any other platform of communication provides more potential. It is possible to provide product or service information, advertise, and have the easy option of buying online. E-commerce has allowed both corporate and small businesses to cast their nets wider to reach global markets faster and at a lesser cost. Today companies like Amazon and eBay, if not directly, are products of doing business over the Internet. Companies are even taking e-commerce to new heights by providing customized services based on software data that tracks user preference.

Having a mere online presence is not enough. It is to the benefit of companies to be visible to capture clients in the first place. If a web site can only be found by way of a random search, the business' efforts at Internet advertising might not be worth the trouble. Some advertisers, in addition to the Internet, rely on traditional forms of communication

such as newspaper and TV ads to raise awareness about their sites or introduce new features on their sites. Other advertisers focus on search engines which steer users to their sites.

Users depend on search engines to sift methodically through various web sites and identify the information they need due to the enormous amount of information on the Internet. As Croteau and Hoynes (2000), aptly phrased it, “search engines are, in essence the doorways to the world of online media: they classify sites, provide keyword searching of Internet pages and even give short reviews of a variety of sites” (p.320). Most search engines support keyword searches with huge databases which, in the case of Google is four billion indexed pages. These databases are constantly updated by automated programs called spiders, which continually search and follow links on web sites and index them in a database. Search engines also work with portals or directories to provide users an alternative to basic keyword search.

Search engines serve two masters: the user and advertiser. Users log on to a search engine to find the information most relevant to their query. Advertisers pay search engines fees ranging from a few cents to hundred dollars when users click on their sponsored link. Search engines have to resolve these opposing interests, on one hand keeping search results relevant so users do not lose interest and switch to a competing provider and on the other hand pursue the business of generating revenue by selling advertising space.

In 2009, according to a recent research, “the revenue generated from Internet sales is estimated to be 16.1 billion” (Goodman, 2005, p.9). This staggering revenue from advertisement raises the question of whether or not search results are being compromised. In a quest for more advertising dollars, do search engines prevent unsponsored sites from being placed on top of search results? How does the presence of sponsored links shape a user’s online experience? Based on these questions, this study evaluates the effects of keyword advertising on Google search results. However, it does not evaluate how relevant the search results are to the user. The study selected Google given its ranking as the top search engine in the industry and for being a trendsetter in redefining advertising on the Internet. To examine the effects of keyword advertising on search results, the research selected search keywords based on the value advertisers paid and popularity of search keywords. The keywords were inputted in the Google search criteria. The top ten results on the first page were examined for the number of sponsored ads and their placement in the search results. The uses and gratification theory was implemented to the findings to study whether the user is affected by the presence of advertisements in search results.

This study is important because in this age, advertisers are paying top dollar to draw customers to visit their site. Thus, it is necessary to explore whether Google is striking a balance between the user and advertiser’s needs without compromising its goal of providing relevant search results. Is Google in part responsible for steering users to particular sites and away from others?

Literature Review

When the Internet consisted of only Telnet, File Transfer Program, Gopher, and email, it had a limited number of users and was therefore not suitable for advertising. These early Internet services did not reach the mass availability necessary to become an important medium of advertising, but this changed in the early 1990s with the introduction of the World Wide Web and graphical web browser.

The following sections give a detailed description of how advertising on the Internet evolved to become a powerful means of generating income, and affect the information a user views. Today, many people use the Internet daily to search and analyze information. The discussion of the origin of search engines and current technology provide a detailed analysis of how search engines have evolved over the years. The literature review also delves into the business model of search engines to illustrate, to what extent advertisers are able to influence the information on search engines. The effect of advertising in search results on the user is examined using the uses and gratification theory. The concluding section describes the origin of Google, its search features and two revenue generating advertising programs.

As the Internet developed and became able to transmit instant messages and images to possible customers, corporations pounced on the opportunity to get their advertisements across. The result was two of the most common form of online advertising: web banners and pop-up ads. The web banner evolved to include flash animation, even going so far as to imitate a computer error message to provoke user reaction and lead users to a site. Pop-ups or e-mercials are advertisements that appear on

the screen and interrupt a user's online experience. Most of the pop-ups are animated. Just like the web banner, pop-up ads use intrusive advertising techniques to lure the user to a particular site.

Advertising on the Internet has grown into a lucrative business. Advertisers acknowledge that the interactive feature of the Internet is an important factor to engage customers and create deeper brand experiences. Enhancement in broadband technology has changed how messages get delivered and created a favorable environment for Internet spending.

There are several reports that show the surge in Internet advertisement spending. One of them is a June 2004 research about online advertising which states, "online advertising would increase to \$8.4 billion in 2004 after experiencing tentative growth in 2003 and that it would nearly double to \$16.1 billion by 2009. Even though online spending amounted to just 3.5% of offline ad spending in 2003, this is expected to almost double to 6.5% in 2009 " (Goodman, 2005, p.9). Another survey from eMarketer, a company that provides market research information related to the Internet, e-business, online marketing, and emerging technologies, predicts that Internet advertisement spending will continue to decrease over the next decade. Figure 1 shows this decrease in the spending trend.

Figure 1: US Paid Search Advertising Spending Growth Increase vs. Prior Year

Source: eMarketer

A major deterrent factor responsible for the decrease in Internet advertisement spending could be the massive growth of the Internet. The proliferation of web sites has made it impossible to reach target customers therefore, advertisers are focusing on search engines instead of particular web sites. The influence of advertising becomes apparent as many search engines results are inundated with advertisements rather than relevant information for the user. Therefore, search engines are under constant pressure to provide relevant information to users and meeting the demands of advertisers.

Search Engines

The Internet's growth as a massive, dynamic depository of the world's information continues at an unprecedented rate. It is impossible to even begin to understand the depth and breadth of information that resides in hundreds of millions of servers around the world. Internet users rely on search technology to help find and sort through the gargantuan amount of information. Poremsky (2004) describes the function of search

engine technology as, “when the search engine software finds pages that match the search request it presents the user with brief descriptions and clickable links to the web page”

(p.5).

Search engines have been widely recognized as the gateways to the Internet. They have become universal features on portals, commercial web sites, and even personal web pages, as users strive to find relevant information on the ever-expanding increasingly unorganized Internet.

Today, there are search engines cropping up everywhere. However, the few search engines that have prevailed despite the dotcom era are Yahoo, Google, AOL, Ask.com, and MSN. The following research finding shows that:

In November 2004, Google garnered 34.4% share of searches and Yahoo coming in with 31.8%. Time Warner, which encompasses AOL Search as well as Netscape.com, Compuserve, and others continue to erode badly, from 12.8% in May 2004 to 9.0% in November 2004. MSN’s share of searches rose from 14.5% in May 2004 to 16.5% in November 2004 (Goodman, 2005, p.10).

The research findings show that Google and Yahoo are currently dominating the share of searches on the Internet.

Emergence of Search Engines

In the early years of the Internet, there were numerous startup search engines competing to establish themselves by trying to index as many pages as technology would allow. In their study Page and Brin (1998) reported that:

In 1994, one of the first Web search engines, the World Wide Web Worm had an index of 110,000 Web pages and Web accessible documents. By late 1997, some search engines claimed to index up to 100 million web pages. Similarly, the number of searches conducted grew rapidly. In March and April of 1994, World Wide Web Worm received an average of about 1,500 queries per day. By

November 1997, a then popular search engine, AltaVista, claimed it handled roughly 20 million queries per day.

Compared to the early statistics, the current search engine that has the largest database of four billion indexed pages is Google. In 2006, according to the findings of comScore, Google received 2.3 billion searches followed by Yahoo at 1.6 billion searches, MSN-Microsoft sites 752.5 million searches, Time Warner 432.6 million searches, and Ask.com 307.3 million searches. Besides indexing pages:

Some, including Yahoo, felt the best way to keep people coming back was by offering everything an Internet user could want, all linked from one page. A portal draws users to the site with news, weather, links, and search engines on the home page. MSN decided that search engines were a means of drawing users and developed its own search engines (Poremsky, 2004, p.7).

The increasing demand for more relevant and faster search results required search engines to improve their search technology to meet the user demands.

Search Engine Technology

Search engines gather data by deploying robot programs that are fully automated and index pages on the Internet. These robot programs are also known as spiders, bots or crawlers. Crawler-based search engines, such as Google, create their listings automatically. The robot programs periodically visit the pages on the Internet to check whether any information on the page has been updated. If the program finds updated information on the page then it automatically adds the new information to the index. The important elements used to check for updates according to Meza and Saloner (2004) are, “page titles, the text on the page and other elements played a role in how the Web pages were categorized and presented in searches” (p.2). Users are then able to access these indexes when they search for information on a search engine.

The other kind of search engine program is a human-powered directory, such as the Open Directory, which depends on humans for its listings. This search program was used initially by Yahoo. The program requires a short description to be submitted to the directory for a site, or editors write one for sites they review. A search looks for matches only in the descriptions submitted. Changes or updates on the web pages have no effect on the listing. A site with good content has higher chances to appear in a search result and is likely to get reviewed for free than a site with minimal content.

In the Internet's early days, a search engine either provided crawler-based results or human-powered listings. Today, it is extremely common for both types of results to appear during a search. Usually, a hybrid search engine will favor one type of listings over another. For example, MSN Search is more likely to present human-powered listings from LookSmart. Yahoo is another company that provides hybrid search results because of its acquisitions of other search engines.

The basic premise of searching is that results are sorted, or ranked, according to certain guidelines, Chu and Rosenthal (1996) observed that, “criteria can include the number of terms matched, proximity of terms, location of terms within the document, frequency of terms within the document as well as the entire database, document length, and other factors” (p.45). The exact formula for how these criteria are applied is called the ranking algorithm and varies among search engines. The variation in the criteria leads to different search results for the same query on search engines.

As search technology improved it enhanced the ability of search programs to get faster and more relevant search results. Many search engines started to incorporate

reading Meta tags as part of their indexing formulas and used the tags to position, rank, and categorize web sites in results. “Meta tags are hypertext markup language (HTML) tags, which provide information that, describe the content of the web pages a user will be viewing. This tag can be used to augment documents with information that is not normally displayed by browsers” (Jensen, 2000). The HTML code is stored as attributes of the Meta tag and is not displayed when the document is loaded into a browser. Meta tags can be viewed by right clicking on the page and selecting the view source option. The tags are usually located on top of the page and provide a concise description for web site owners to categorize their site by using the most appropriate keywords.

As the number of web pages increased exponentially on the Internet, commercial sites started to scramble to attract visitors. Webmasters added popular search keywords to the Meta tags that were not related to the content on the page. This enabled rogue web pages to be accessed frequently and receive a higher ranking. In order to provide relevant results, search engines started to take action against webmasters, who manipulated search results, by excluding the pages all together from their search results. Search engines started to look for innovative ways of indexing pages. According to Meza and Saloner (2004), “one popular approach was link analysis. By analyzing the number of pages that link to a given web page, a search engine can determine the importance of the page and increase its ranking accordingly” (p.3).

With the sophistication of search software that weeded out the irrelevant sites, companies realized that in order to get the attention of search engine users they had to use innovative ways to advertise. Advertisers started to buy the most frequently searched

keywords related to their products from search engines so that their sites would appear frequently in search results.

Search Engines Today

The three most successful search engines with a large amount of traffic emanating from the US are: Google, Yahoo, and MSN. According to the January, 2006 comScore report on Search analysis of activity across competitive search engines conducted, in November 2005, out of the 5.15 billion searches conducted in the US, Google sites garnered the most searches with 2.05 billion searches measured, followed by Yahoo sites with 1.52 billion searches, MSN-Microsoft sites with 728.8 million searches, Time Warner Network with 446 million searches, and Ask.com with 336.3 million searches. Yahoo and Google continued to battle for supremacy in the toolbar search arena. Yahoo sites received 48.5 percent of toolbar searches, edging out Google's 46.4 percent share. While Yahoo's competitive edge is noteworthy, toolbar search activity represented only 12 percent of total searches.

Google controls its own paid advertising services through its AdWords and AdSense programs, which appear not only on Google and major partners like AOL, but also on thousands of other web sites that serve up Google ads through the AdSense program.

Yahoo, on the other hand, evolved as a major search engine by acquiring Inktomi and Overture. "Inktomi is a provider of web databases populated by spider programs and the originator of pay-for inclusion and pay-for-spidering options. Overture is a search tool that already owned search properties FAST Search, Transfer (creator of the

Alltheweb search engine), and Altavista” (Clay, 2003). The search technologies from the acquired companies provided the traffic enhancement that Yahoo required to become a major search engine. Before acquiring major search engine companies, Yahoo relied on human editors to index and organize data rather than implementing search programs. In addition for a short period of time, Yahoo used the search technology of Google when Google was still in its infancy. Yahoo later discontinued Google’s services when Google began to emerge as a competitor in the search engine market.

Microsoft Network capitalizes on its dominant position in operating systems to generate traffic to the MSN site. Microsoft, “designed to enable users to quickly identify and purchase paid content based on a contextual search of currently open applications, it is only reasonable to assume that this contextual search could easily extend to include a Microsoft-owned search property filled with paid listings” (Vine, 2004, p.4).

Advertising on Search Engines

Search engine advertising began when advertisers realized that interactive messages could be sent to potential customers using the Internet. Advertising on search engines has grown tremendously in the past years because advertisers know that users are relying heavily on search engines to find detailed information on products and services.

“Research has shown that higher income users spend more time on the Internet and buy more online” (Greenspan, 2003). Users depend on search engines to research information online before making a major purchase decision. Vine (2004) found that, “this marketplace of high income earners is intensely attractive to marketers and much harder to isolate in traditional media such as TV or magazines” (p.1).

Currently, the growth in the US Internet advertising shown in Figure 1 is slowing but the search engine advertising still generates huge revenues, according to the current research conducted by comScore:

The good news for search companies is that the utilization of search queries for advertising purposes continues to increase. In December 2005, 57.2 percent of search query results included a sponsored advertisement, up from 49.1 percent a year earlier. As a result, search revenue growth will significantly outpace search query growth (2006).

Another research held in 2006, by Nielsen//NetRatings in AdRelevance tracking data indicates that, marketers bought 185 billion display ad impressions in the month of March 2006. That is nearly twice as many as the 97 billion that were bought in March 2005 and 31 percent more than February's 141 billion. These numbers in Figure 2 indicate that search engine advertising is here to stay and advertisers are investing billions of dollars in order to take advantage of Internet's precise targeting of fragmented audiences as a prime benefit of online advertising.

Figure 2: Online Display Ad Impressions in the US from March 2005-2006

Source: eMarketer

Search Engine Business Model

Users believe that the major reason for the existence of search engines is to provide information. However, providing information is not the only purpose of search engines such as Google, Ask.com, AltaVista, and Teoma and portals such as Yahoo and MSN. In order to survive, a search engine company must generate revenue. Vine (2004) states that, “in reality, commercial search engines are in the advertising business. They earn the vast majority of their revenue by delivering context-sensitive advertising using a variety of means, but principally by leasing search keywords to purchasers” (p.2).

The main objectives of the search engine business model are increasing user traffic, ensuring relevance of ads to the search, and collecting revenue from the ads. A large amount of traffic can generate revenue for a search engine because advertisers will readily pay to sell their products and services if they know that people will see the ads. Though not a search engine, the Million Dollar Homepage proves that traffic does generate revenue. This internet phenomenon captured the imagination of advertisers because it was the first to sell one pixel of advertising space for a dollar. Today the site has 60,000 visitors a day and has generated one million dollars.

Once users are logged to a search engine site, the two major goals are to keep the user longer and compel them to return frequently. To accomplish these goals, search engines have to ensure that the ads displayed on the search results pages are relevant to the conducted search, and reflect the intent and goals of the user. Search engines can increase the relevance of ads by helping advertisers select the best keywords and keyword definitions. When the search algorithm locates certain keywords in the Meta tag

or in the content of the page, it matches the ads to search keywords. In addition, Meza and Saloner (2004) propose that, “search firms could also learn from user behavior (e.g., what search results they clicked on), which search results were most relevant for particular searches and tune their search algorithms appropriately” (p.4). If a search engine has a large number of visitors then it has a better chance to improve its search algorithm.

Advertisements that are viewed by the continuous traffic to the search engine generate income. “When search engines deliver ads to search results pages, advertisers pay fees to the search engine or their designated ad-feed partner for every ad impression that is delivered. If the searcher clicks on the ad link (also known as click through), additional revenue may accrue to the search engine” (Vine, 2004, p.3). Search engines provide several services such as keyword bids, paid inclusion, and pay-per option. By using search engine services advertisers ensure that their advertisements appear on related search results to increase traffic to their sites.

Purchase Keywords

Advertisers purchase rights to relevant keywords or key phrases that describe the product or service to have their advertisements appear on web pages related to those keywords. For example, a travel agent might purchase the right to the phrase “cheap flights” and have an advertisement placed on hotel or car rental sites. However, “different advertisers could buy the same keywords, but their respective ads would be displayed according to context and relevance. Such ad schemes usually share revenue

with the displaying web site” (Meza and Saloner, 2004, p.4). Google AdWords service sells keywords to advertisers that are relevant to their product.

Keyword Bids

According to the Interactive Advertising Bureau and PricewaterhouseCoopers report, keyword search advertising alone brought in \$5.132 billion in 2005 (2006). Keyword bidding was developed because of the stiff competition among advertisers. Keyword bidding is the process of bidding on keywords for specific rankings in search engines. The higher bid gets the advertiser a higher placement in the search results. Google uses keyword bidding as a partial determinant of the placement of ads in its sponsored links sidebar. In a sponsored links list, higher bidding advertisers get placed at the top of the list.

Paid Inclusion

With paid inclusion program, advertisers pay a fee to submit a web page to a search engine or directory's database. However, paid inclusion does not guarantee that the advertiser's pages will rank high. Companies choose this option because if they submit the web page to the search engine, their site appears in the search results faster than if they waited for the search engine spider program to find the site. Vine (2004) explains that:

Paid placement programs, by contrast, generally guarantee that a link to the advertiser's URL will be delivered in the search results on a matched keyword or keywords. Location of the delivered link generally governs the fees, so advertisers will pay more to be placed higher up the page in the search results” (p.3).

Search engines such as Inktomi, AlltheWeb, Teoma, LookSmart, and AltaVista offer paid inclusion programs.

Contextual Search

The business of search engine based advertisements is very competitive. To ensure revenue, many companies are turning towards another method of revenue called contextual search. Contextual search is a program where advertisers pay Google, or another search engine company that offers the service, to post advertisements on web sites that will most likely be viewed by the advertiser's target audience. This is accomplished when approved advertisers include pertinent keywords into their web pages. These keywords are then examined by the search engine's algorithm and matched to relevant advertisements in their database. The algorithm then serves advertisements based on content relevancy. For example Google's AdSense program places advertisements on pages of the web sites that sign up for the program, and the advertisement selection is contextually based on what Google's search technology classifies the content of the page. Overture's ContentMatch which is now used by Yahoo is also a similar program.

Pay-per Options

After the advertiser's link is delivered to the page, additional revenue can be generated based on whether the link is clicked on. Vine (2004) aptly describes the service as:

Pay-per-impression enables advertisers to pay based on how many users were served their ads. In this model, users do not have to click on the ad for monetization to occur. In a pay-per-click model, advertisers pay agencies and/or media companies based on how many users clicked on an online ad (p.3).

An advertiser might pay for every visitor who clicked on an ad or site and proceeded to complete a form. In a pay-per-sale service, advertisers pay based on how much sales

transaction was generated as a direct result of the advertisement. The combination of high traffic and increase in sales and services for advertisers is what enables a search engine to remain competitive in the market.

Search Engine Users and Advertising

Users of search engines are active communicators because they choose the medium in order to satisfy their need for information. They also are responsible for influencing the medium. The success of search engine advertising can be attributed to users because they inadvertently direct advertisers to themselves when they enter keywords to search for information.

This factor is very evident in the recent estimate by eMarketer (2006), which predicted that marketers will spend \$1.2 billion on behavior targeted online advertising in 2006. In only two years, eMarketer predicts spending on behavioral targeting will surpass the \$2 billion mark. Figure 3 shows the drastic increase in the spending for behavior targeted advertising since 2003.

Figure 3: Behavior Targeted Online Ad Spending in the US 2003-2008 (Millions)

Source: eMarketer

Advertisers are utilizing various methods to better analyze and implement behavioral targeting. The three main premises of behavioral targeting propose that:

- behavioral targeting helps marketers get better results from fewer impressions.
- publishers like the fact that behavioral targeting delivers more revenue for some less popular pages.
- users tend to find ads targeted by their actions to be more relevant to their needs.

Advertisers are spending billions of dollars to study search engine user behavior. Some of the other areas of behavioral targeting are based on demographics, geography, past purchase history, web data usage, site preference and web research behavior.

Uses and Gratification Theory

To evaluate the effect on users of advertising in search results, this study implements the uses and gratification theory. This theory states that the source of influence is the message or medium. The audiences are active communicators and receivers of messages. “The principal objectives of uses and gratifications inquiry: (a) to explain how people use media to gratify their needs, (b) to understand motives for media behavior, and (c) to identify functions or consequences that follow from needs, motives, and behavior” (Katz et al., 1974, p.20).

These objectives have been revised since the 1970s, and the current view of uses and gratification according to Rubin (2002, p.527-528) is based on the five hypotheses listed below:

1. Communication behavior, including the selection and use of the media, is goal-directed, purposive, and motivated. People choose media or media content. That behavior is functional and has consequences for individuals and societies.
2. “People initiate the selection and use of communication vehicles. Instead of being used by the media, people select and use media to satisfy their needs or desires” (Katz et al., 1973). Media audiences, then, are variably active communicators. Media use may respond to needs, but also satisfies wants or interests such as seeking information to solve a personal dilemma.
3. Hosts of social and psychological factors guide, filter, or mediate communication behavior. Our predispositions, the environment in which we live, and our interpersonal interactions shape our expectations about the media and media content. Communication behavior responds to the media and its messages as they are filtered through our personalities, social categories and relationships, potential for interpersonal interaction, and communication channel availability.
4. The media compete with other forms of communication or functional alternatives, such as interpersonal interaction for selection, attention, and use so that we can seek to gratify our needs and wants. There are definite relationships between personal and mediated channels in this process. How well the media satisfies our needs, motives, or desires varies among individuals based on their social and psychological circumstances.

5. “People are typically more influential than the media in this process, but not always. Our own initiative mediates the patterns and consequences of media use. Through this process, media may affect individual characteristics or social, political, cultural, or economic structures of society and how people may come to rely on certain communication media”

(Rosengren, 1974; A.M. Rubin and Windahl, 1986).

Audience behavior is a key factor in the uses and gratification theory. This behavior is categorized into two, either ritualized or instrumental use. Ritualized use occurs when the medium is used habitually to consume time and create diversion. The user enjoys the medium and is not actively seeking information. Instrumental use occurs when the user is seeking for certain information. In this kind of use, the user is exposed to news and factual information and is actively involved in selecting information. According to Windahl, “instrumental orientations may produce stronger attitudinal and behavioral effects than ritualized orientations because instrumental orientations incorporate greater motivation to use and involvement with messages. Involvement suggests a state of readiness to select, interpret, and respond to messages” (1981).

Limitations of the Uses and Gratification Theory

The uses and gratification approach, according to McQuail, does not provide an adequate explanation of media choice and use. The reasons for the inadequate explanation, “lie partly in difficulties of measurement and partly in the fact that much media use is actually very circumstantial and weakly motivated” (McQuail, 2000, p.389). There is a weak relationship between the attitude towards media and media use. The

connection between the selection and use of media is difficult to determine. According to McQuail (2000), “it is hard to find a logical and consistent relation between the three sequentially ordered factors of; liking/preferences; actual choosing and subsequent evaluation” (p.389).

Based on Blumler’s (1985) interpretation, a user’s decision to choose a media depends on the society, individual behavior, and the circumstances of the situation. Since it is hard to determine what particular factors motivate the choice and use of a certain type of media it, is challenging to reach a definite conclusion.

Google

The mission of Google is to organize the information on the Internet and make it universally accessible via innovative advances in search technology. Google is a “play on the word *googol*, which was coined by Milton Sirota, nephew of American mathematician Edward Kasner, to refer to the number represented by one followed by 100 zeros” (Google, 2006). Google's use of the term reflects the company's mission to organize the immense amount of information available on the web and in the world.

Larry Page and Sergey Brin, two Stanford Ph.D. candidates, founded Google in 1998. They developed a technologically advanced methodology for finding information on the Internet. Based on research into large-scale data mining and analysis of the link structure of the World Wide Web, Page and Brin determined that by using mathematical algorithms they could estimate the quality or importance and relevancy of the web pages returned by a search. This research later developed into Google’s PageRankTM search algorithm.

Google's Search Model

Google's pioneering search technology and simple design has enabled Google to stand apart from today's search engines. Rather than using only keyword or Meta tag search technology, Google uses the PageRank™ to ensure the most relevant search results. According to the information on Google's web site, the approach to searching the Internet is based on the following features:

- **Easy-to-use Interface:** Google's clean, uncluttered interface is designed to make it easy for users to enter search queries and interpret results. Results are presented with context sensitive summaries so users can determine whether the corresponding web pages will satisfy their need. Users can also enter a query and click the I'm Feeling Lucky™ button, which leads users directly to the web site of the first search result.
- **Basic Search:** performs "and" queries by default and returns only those pages that include all of the search terms. Uses proximity searching and prefers pages in which the query terms are in close proximity. Basic search is case insensitive.
- **Hypertext Matching Analysis:** Google's search engine also analyzes page content. However, instead of simply scanning for page-based text (which can be manipulated by site publishers through Meta tags), Google's technology analyzes the full content of a page and factors in fonts, subdivisions and the precise location of each word. Google also analyzes the content of neighboring web pages to ensure the results returned are

relevant to a user's query. All of this data enables Google to return results that are more relevant to user queries.

- **PageRank™ Technology:** core to Google's search engine is its PageRank™ technology. PageRank™ performs an objective measurement of the importance of web pages and is calculated by solving an equation of 500 million variables and more than 2 billion terms. PageRank™ uses the vast link structure of the web as an organizational tool. In essence, Google interprets a link from page A to page B as a "vote" by page A for page B. Google assesses a page's importance by the votes it receives and analyzes the page that casts the vote. Votes cast by pages weigh heavily and make other pages "important." This works because if a web page contains good information, many other web pages will link to it. High-quality pages receive more votes, a higher rank, and are placed higher in the results. Google's technology uses the collective intelligence of the web to determine a page's importance. Google does not use editors or its own employees to judge a page's importance.
- **Relevant Results:** Google delivers the most relevant and important results compiled by the search algorithm and an excerpt from the web page with search terms highlighted in boldface type.
- **Indexing:** Google looks at the link interconnectedness among pages and indexes all of the text on each site.

Besides the search capabilities of Google, there are other services there are targeted towards potential advertisers such as AdSense and AdWords.

Google's Advertising Model

Internet advertising has been surging in recent years as advertisers follow their potential customers, who are shifting their attention from television to computer screens. Google and Yahoo have been among the primary beneficiaries of this change, and both have enjoyed rapidly growing sales and profits. According to the Google Analyst 2006 presentation, Google's advertising revenue in 2005 has increased 113% from Google sites and 73% for partner networks. The growth in Google's advertising revenue since 2002 is shown in Figure 4. The tremendous increase in advertising revenue since 2002 can be attributed to the introduction of advertising programs such as AdSense and AdWords.

Figure 4: Google Advertising Revenue Increase in Five Years

Source: Google Analyst Day 2006 Presentation

AdSense works like an advertising agency, automatically placing sponsored links and other ads on third-party web sites such as AOL. Google then splits the revenue with the owners of the web sites, who range from multinationals to individuals publishing blogs. AdWords offers its search service that helps advertisers sift through the many thousands of sites Google represents to find those that may have an audience appropriate for their products. The diverse fields of advertisement attract various advertisers and generate income for Google. Figure 5 shows the general areas of advertisement Google offers its advertisers.

Figure 5: General Targets of Google Advertisement

Source: Google Analyst Day 2006 Presentation

Google's advertising services enable businesses to bid in an auction to buy keywords and phrases. In the auction, "the advertisers bid per click anywhere from a

penny to \$100 however; Google restricts businesses to spend no more than \$250,000 per day” (Lee, 2006). Google then places the company’s advertisements on web sites that match those keywords and phrases. Advertisers pay a fee each time a user clicks on the advertisement. Businesses do not know how much their competitors are bidding, but they do not pay what they actually bid; they pay one cent above the next-highest bidder. This pricing structure allows Google to use market forces to keep prices from becoming outrageous. “Prices are not set and advertisers determine how much they are willing to spend, though higher prices work in Google's favor” (Lee, 2006).

Some of the major advertisers on Google are Sony, Target, edmunds.com, PBS, Pontiac, WebMD etc. However, there is no way to guarantee that the advertisements will appear in the top spot. Where an advertisement appears depends on a combination of how much a business is willing to pay, and how much the advertisement has to do with the search. Lee (2006) infers that, “no matter how much an advertiser is willing to pay, the ad will not get top billing if the user is looking for something completely different. That also means that one company could pay less than another and wind up in a premium location, as long as Google believes its ad is the most relevant to the user's search”.

Google has other services that it provides for free such as Google Earth, Google Base, and the latest Google Calendar. Branching out into the different venues gives Google an edge and ensures the ability to sustain itself in the competitive search engine market. However, the figure below shows that Google still is very dependant on search and advertising services to generate most of its revenue. AdSense and AdWords are the two main income generating services from advertising as shown in Figure 6.

Figure 6: Google's Advertising Revenue

Source: Google Analyst Day 2006 Presentation

Google AdSense

AdSense program enables web sites in the Google Network of content sites to automatically serve text and image ads that are precisely targeted to the site content. Targeting can be based on search results or on web content. Most of the revenue generated from the ads is shared with partner publishers.

Most of the host sites sign up online, and Google directly sells memberships to sites with significant traffic. Google AdSense is also available to advertisers to generate additional revenue by serving relevant AdWords ads targeted to search results. Google offers the license to its web search technology to companies without their own search service to improve the sites' revenue. In addition to allowing the use of its search technology, AdSense also provides advertisers the option to target certain domains. AdSense for domains grants advertisers access to over 3 million domain names.

Advertisers can use the database to deliver targeted, conceptually related keywords, and advertisements to domain name pages by using Google's search technology.

Google AdWords

Google AdWords is a keyword based advertising program that enables advertisers to reach the potential customers who are interested in their products or services.

According to the information on Google's site, advertisers use AdWords' tools to create ads, place keyword bids, select the types of sites where they would like their advertisements to appear, and set daily spending budgets. These AdWords features are automated and the service costs five dollars to signup. The service enables advertisers to implement ad campaigns that can be uploaded and become live on the site in 15 minutes or less.

AdWords ranks ads for display in one of two ways:

- By CPM (cost per thousand impression), refers to the fee paid to an advertising vendor for each click on a link that sends consumers to an advertiser's web page. CPM ads set their desired price per 1000 ads served, select the specific sites on which to show their ads, and pay each time their ad appears. Advertisers receive the agreed revenue each time a CPM ad is placed on their page.
- By a combination of the maximum cost per click (CPC) that is set by the advertiser, combined with click-through rates and other factors used to determine the relevance of the ads.

There is a competition between CPM and CPC ads on Google therefore, only the highest performing ads will be placed on a web site. The combination process favors the ads that are most relevant to users, improving the experience for both the person looking for information and the advertiser looking for interested customers. For example, if an advertiser signs up for AdWords to sell beauty supplies. The advertiser has to select single words and phrases related to the content of the ad. The AdWords system constantly seeks out search queries related to the keywords selected and displays ads to highly targeted audiences.

A significant feature of AdWords is the ability to target advertisements to almost any language and location worldwide. This feature allows businesses to choose the countries, their respective states and language. “For example, you can target your ads to Spanish speakers in California or Portuguese speakers in Brazil. This language and location targeting functionality lets you tailor your ads and promotions to increase your business's appeal to a variety of audiences” (Google, 2006).

AdWords Keyword Match

There are four different keyword matching options methods of targeting AdWords ads to users; broad, phrase, exact, and negative. By using most relevant matching options to keywords, an advertiser has a better probability to reach the target user, reduce CPC cost, and increase revenue to the site.

Broad Match - is the default search option. If general keyword or keyword phrases such as guitar lessons are in the keyword list, ads will appear when a user's search keyword contains guitar and lessons, in any order. Ads will also automatically appear for

expanded matches, which are variations of keywords such as plurals, synonyms, and misspellings. Broad matches are sometimes less targeted than exact or phrase matches thus, it is necessary to create keyword phrases containing at least two descriptive words each. Other advertisers, who have bid for the same broad matched keyword combinations, increase the actual CPC costs.

Phrase Match – if an advertiser chooses this option, the ad is related to the phrase such as guitar lessons. Then, if a user enters the keyword “guitar lessons” in quotation marks, an ad will appear which includes the same phrase guitar lessons, and possibly with other terms in the query. For example, the ad will appear for the query Spanish guitar lessons but not for Spanish guitars. Phrase matching is more targeted than broad matching, but slightly more flexible than exact matching. To target ads as much as possible it is important to include at least two descriptive words in the keyword phrases.

Exact Match - if an advertiser picks this option, the ad is associated with the exact phrase such as guitar lessons. Then, if a user enters the keywords in brackets [guitar lessons] an ad with the specific phrase guitar lessons appears, without any other terms in the query. Exact matching is the most targeted option. Exact matching does not generate much revenue but is useful if the advertiser’s site provides products and services that contain specific terminologies.

Negative Keyword - if an advertiser selects this option, the ad is excluded from the search query that for example includes Spanish. Thus, if a user enters the keyword Spanish guitar lessons the ad will not appear.

Method

This section introduces the method implemented to examine whether keyword advertisement influences the search results in Google. Google was selected for the research due to its dominance in the search engine industry and its vast database of four billion indexed pages. In order to evaluate whether the above premise is correct, the study initially selected twenty random words that appeared frequently in banner ads on emails and various commercial sites.

The selected keywords varied between broad search terms to phrases. However, during the process of narrowing down the sample keywords to ten, two lists of sample keywords emerged. The first set of broad keywords had a high number of search hits but low bids from advertisers. The second set of phrase keywords had high bids but less search hits. Therefore, to ensure that the data sampling was inclusive, both set of keywords were added to the final keyword list. The keywords were then tested on Google for a period of thirteen days. The top ten search results for each keyword were analyzed qualitatively based on two criteria: keyword placement and search result rank.

The first collection of data was organized by the sample keywords and the frequency of small business advertisements and individual sites that appeared on Google search results. The second collection of data was arranged by sample keywords and the frequency of corporate advertisements on Google search results.

Sample Keywords

In order to select the most sought after commercial keywords for the study, the first step was to test the number of times a keyword appeared in a search. However, the major challenge during the process of narrowing down the sample keywords was the lack of access to the Google AdWords. Only advertisers who have accounts with Google are able to use the research features such as traffic estimator that enable advertisers to gauge the popularity of a keyword. Therefore, for the purpose of this study a web site called 7Search was used instead to test the keywords. 7Search is a search engine that provides advertising services to generate web site traffic for companies. The search engine sells keywords to sites through an auction and the advertisers who win the bid are allowed to include the keywords to their site.

The reason for selecting the mentioned web site is because it offers its free keyword tool for users to research the number of search hits for each keyword. According to 7Search, 35% of the top 150 search engines use its search results (2006). When a keyword is entered the results on 7Search also include a comprehensive list of related keywords. In addition to the number of search hits for a keyword, the search results also show the top five bid prices placed by advertisers. An example of the list of related keywords and top five bid prices is attached in the appendix B section. Therefore, advertisers can easily search the number of hits a keyword has, to estimate the amount of traffic the keyword will generate. They also can access the top five bid prices of keywords before placing a bid through the web site. For the purpose of this study, a random sample of keywords was entered in the 7Search site and the keywords that had

the highest search hits were selected. The random sample of twenty keywords was narrowed to the top ten keywords that had the highest search hits. Table 1 shows the top ten keywords with the highest number of search hits:

Table 1: List of Broad Keywords

Most Searched Keywords		Hits Per Keyword	Bid Amount
1.	Car insurance	892,661	\$ 1.11
2.	Cell phone	740,965	\$ 0.23
3.	Credit cards	2,274,877	\$ 0.87
4.	Download	645,756	\$ 0.10
5.	Free	965,650	\$ 0.78
6.	Home	1,075,734	\$ 0.31
7.	Hotel	1,116,252	\$ 0.10
8.	Surgery	194,209	\$0.16
9.	Software	339,235	\$ 0.05
10.	Used car	634,751	\$ 0.27

During the process of narrowing down the sample keyword list to the top ten it became evident that the number of search hits for a keyword did not correspond to the highest bid amount. Therefore the study included the related keywords with the highest bids that appeared alongside the original ten broad keywords. In the case of the keyword

car insurance, it was the most searched and had the highest bid compared to all the other related keywords. Most of the keywords with the highest bids were more specific phrases compared to the original broad keyword list. The inclusion of the broad and phrase keyword sets ensures that the data sampling for this research is varied. Table 2 shows the highest amount of bids placed by advertisers:

Table 2: List of Phrase Keywords

Highest Bid Keywords		Bid Amount	Hits Per Keyword
1.	Car insurance	\$ 1.11	892,661
2.	Cell phone ring tone	\$ 0.60	4,526
3.	Credit card debt	\$ 1.60	65,037
4.	Black Jack download	\$ 4.06	7,632
5.	Free casino game	\$ 2.63	77,676
6.	Home refinance	\$ 2.58	14,558
7.	Las Vegas hotel casino	\$ 1.50	16,983
8.	Plastic surgery	\$0.62	12,295
9.	Poker software	\$ 1.26	11,993
10.	Bad credit used car loan	\$ 0.64	2,027

To guarantee that the selected list of broad keywords did have high search hits, the keyword search results were verified using another web site called wordtracker. This site

provides the highest searched keywords in the last 90 days. The information is extracted from two search engines namely; Dogpile and Metacrawler. The broad list of keywords was entered into the wordtracker free trial version. The results from wordtracker confirmed that the broad keywords were highly searched among users and thus had a bigger possibility of being targeted by advertisers. Table 3 shows the final list of the broad and phrase keywords selected to perform the keyword advertising analysis on Google search results:

Table 3: List of Broad and Phrase Keywords

Most Searched Keywords		Highest bid Keywords
1.	Car insurance	Car insurance
2.	Cell phone	Cell phone ring tone
3.	Credit cards	Credit card debt
4.	Download	Black Jack download
5.	Free	Free casino game
6.	Home mortgage	Home refinance
7.	Hotel	Las Vegas hotel casino
8.	Surgery	Plastic surgery
9.	Software	Poker software
10.	Used car	Bad credit used car loan

Test Parameters

With the overall complexity and proprietary nature of the PageRank™ algorithm, it is impossible to consider all the elements of how it functions. Instead, the intent of this study is to implement a series of tests that can provide a general result that would allow to evaluate whether corporate advertisers occupy the top search results.

Each keyword in the research was entered exactly as shown in Table 3 with no operators, modifiers, or quotes. This was done to replicate the type of searching done by most users. Default settings were used in searching for the keywords. Searches were run from April 13-26, 2006. This period was selected in order to test whether there would be a difference in the results when the Google search algorithm indexes new pages to the database. During the 13 days of data collection a total of 2600 links were tested. Dead and repeated links were removed from the data.

A user usually browses only the first few pages of search results, the relevance of those results provided by the search engine is crucial to the success of the search session. Google's search algorithm considers a number of criteria to generate search results. However, the search criteria is not available for evaluation due to propriety reasons. But the number of terms matched, location of terms in title, headers, or Meta tags, and the proximity of terms can be assessed by users. With this premise in mind, two basic

criteria were formulated to review of placement of corporate advertisements in the search results:

- Keyword Placement: do sites that contain the keyword in the title and Meta tags rank higher than sites that contain terms only within the body of the site?
- Search Result Rank: do the search results contain sites from corporate advertisers? How high are they placed compared to the rest? Are the advertisers in the sponsored links also repeated in the search results?

The impact of keyword advertisement on search results was assessed using the keyword placement and search result rank criteria and the findings are presented in the results section.

Results

The search results data that evaluated the effects of keyword advertising on Google was analyzed qualitatively. The first collection of data was arranged by keywords and the frequency of small business ads and individual sites that appeared in Google search results. The second collection of data was organized by keywords and the frequency of corporate ads.

For the first group of data, Figure 7 illustrates that there is a direct correlation between the appearance of small business advertisements in Google search engine results and phrase keyword queries.

Figure 7: Frequency of Small Business Advertisement and Individual Sites on Google

In most cases the percentage of small business advertisements and individual sites was more than 75 percent and above when phrase keywords were searched. There were however, exceptions where broad keywords such as surgery, software, and free included

more small business advertisement and individual sites compared to corporate sites. Most of the sites that appeared for the keyword surgery were sites for private practices. For the keyword software the search results included sites for games and software downloads. The search results for the keyword free consisted of software downloads, audio and video players, and software downloads. The explanation that can be derived from this result is that small business and individual sites use these keywords to entice users and increase traffic to their sites.

The research also found that, small business advertisers were not bidding high prices on keywords that had a large number of search hits. Instead they were bidding on specific phrases keywords such as bad credit used car loan. This is because small business advertisers are eager to take advantage of the search engines' precise targeting of fragmented audiences. Corporate advertisers offer a variety of services and opt to bid on broad keywords. This factor offers small businesses a better probability to be placed in the top search results and still pay less. Sullivan, in his article confirms that, "for advertisers, it means that for those ads where you absolutely, positively want to show up, exact match is the way to go" (2006). Therefore, investing money on phrase keywords ensures that small business advertisers earn the best possible yield out of their investment.

For the second group of data, the graph below confirms that corporate advertisements are higher when broad keywords are entered in search queries. Corporate advertisements appear 45 percent and above when broad keywords are entered. Figure 8

illustrates that the percentage of corporate advertisement is mostly high on broad keywords.

Figure 8: Frequency of Corporate Advertisement on Google

The exception in this case is the Las Vegas hotel casino phrase keyword where 90 percent of the search results are corporate advertisements. The explanation for such a high amount of advertisement for the keyword could be the fact that tourism is a multi-million dollar industry in Las Vegas. Therefore, major hotels in Las Vegas compete to bid on that keyword to attract customers and generate revenue.

Corporate advertisers have a two fold advantage over small businesses because they can afford to bid high prices on broad and phrase keywords and make it impossible for small businesses to compete. In addition, corporate sites are visited more frequently and have high traffic therefore Google's PageRankTM search algorithm denotes these sites as

high quality and places them on the first page. The research found that in many instances corporate sites appeared both in the top search and sponsored link section.

While analyzing the Meta tags the study also found that 54 percent of the sites that had keywords in the Meta tags ranked higher than the sites that contained the keywords within the body of the sites. In some cases corporate sites that had keywords in the body were ranked higher and in these instances the site was also repeated in the sponsored links section.

Conclusion

Google has changed the advertising paradigm of the search engine industry by clearly setting apart and labeling advertisements from the search results. Google's sponsored links usually do not take up a lot of space on the page, which allows users to search for relevant information without being overwhelmed with advertisements. These low impact ads allow for Google's success in search engine advertising despite the adverse attitude change towards Internet advertising over the years.

The research conducted by Shavitt, Vargas, and Lowrey (2004) indicates that audience attitude towards advertising medium responded directly to how intrusive the medium's characteristic advertisements are, and to "the degree to which the medium offers self-selected ad experiences" (p.1028). Their conclusion was that when a media allows the audience to select the advertising content it is not only tolerated, but also has a higher chance of retention in the viewer memory. Catalog and classified ads, which allow viewers the freedom to choose their own area of focus, can in fact surpass invasive TV and radio ads in terms of response and memory.

Google's content targeted advertising model is designed to achieve similar effects as proposed by Shavitt, Vargas, and Lowrey. The simple, text-focused presentation of the Google ads is far less intrusive than graphics-based advertising, greatly improving viewer attitude and response to the message. Furthermore, Google's advertising model creates a form of self-selection by bringing advertising into close correspondence with user-selected content. This statement confirms that the second hypothesis of the uses and gratification theory which states, "people initiate the selection and use of communication

vehicles. Instead of being used by the media, people select and use media to satisfy their needs or desires” (Katz et al., 1973). Media audiences, then, are variably active communicators. Media use may respond to needs, but also satisfies wants or interests such as seeking information to solve a personal dilemma, does apply to search engine advertising.

Search engine users are active seekers of information and motivated to seek information. Therefore, ritualized or instrumental use of Google exposes users to advertisements for every search. Since the advertisements on Google are geared toward the content of the query, the search results are gradually initiating behavioral and attitudinal changes in users. Thus this study concludes that advertisements in search results on Google do affect users. The level of the effect of advertisements on the user however, is difficult to determine because the relation between media choice and use is not clearly defined by the uses and gratification approach.

Revenue from advertisement is what keeps Google in business. However, Google strictly dictates the type of keywords advertisers can use to advertise their sites. The terms and conditions of keywords that are not allowed in the AdWords program are attached in the appendix A section. Google is able exercise such control on the use of keywords because it is the most searched site among the search engines and holds a large percentage of the market share for click throughs, which is the process of clicking on a link in a search engine result page to visit an indexed site. The recent survey of the top ten search engines by Nielsen//NetRatings illustrated in Figure 9 shows that Google holds a 64 percent share.

Figure 9: Top Ten Share of Search Engine Click Throughs

Source: Nielsen//NetRatings, March 24, 2006, UK

Google's two rivals, Yahoo and MSN, hold 10 percent and 7 percent of click-through share respectively. Therefore, advertisers big and small have to conform to the policies of Google.

The success of Google and other search engines is the reason why advertisers are spending more than ever on search engine advertisement and the costs are rising. According to the survey conducted by eMarketer, 55 percent of respondents to the survey said that the CPM for premium inventory was more in 2006, and 15 percent of respondents reported increases higher than 10 percent from the previous year (2006).

The eMarketer survey figures support the results of this study. During the process of narrowing the number of sample keywords the amount of bids for some of the broad keywords was more expensive compared to the other keywords. This study found that many small business advertisers were not bidding for broad keywords such as credit cards or cell phone which had a large number of hits. Instead these advertisers invested

on phrase keywords such as plastic surgery or free casino games even though these keywords did not have a large number of hits. Based on this information it can be concluded that small business advertisers are vying for the users that are searching for specific products or services. With the increase in advertising prices and the competition against corporate advertisers, investing money on phrase keywords ensures that small businesses gain a better return on investment.

The research found that Google's search algorithm placed popular sites among the top ten. In most cases corporate sites appeared when broad keywords were entered. Thus it can be derived that users are more likely to find corporate sites when they search using broad keywords. On the other hand, users are more likely to find small business and individual sites when they search using specific phrase keywords.

The overall results of the study show that a large percentage of the Google search results are from individual and small business sites. This shows that Google search results do include a variety of sites for the user to choose from.

Limitations of the Study

The major limitation of the study was shortage of time. This factor did not allow the researcher to delve deeper into the specifics of search engine advertising. The same factor also hindered the duration of the sample keywords that could be entered into Google.

The lack of access to the AdWords program made it difficult to get information on the number of search hits and the amount advertisers bid for each sample keyword. Therefore, in order to get the information the study opted to use other sites that sell

keywords namely; 7Search and wordtraker. The data collected from these sites were analyzed and tested on Google.

The research could not elaborate on the ranking of the advertisements because of the proprietary nature of the Google PageRank TM search algorithm. Therefore, the results and conclusions of the study are derived from analyzing data derived from entering the two set of keyword lists in Google.

Significance of Study

This study contributes to the field because it covers three main subjects namely; the user, advertiser, and Google. There are several researches that separately analyze uses and gratification theory, search engine advertising and Google in detail however this research addresses all these subjects directly.

The findings from this study can be used to improve the uses and gratifications approach by adding new criteria that clarifies the level media affects users. This improvement will enable the theory to be applied in the future studies that involve the Internet and guarantees its permanence.

This research benefits users who are engaged in active search for information. Search engine users can learn about the types of search results they are likely to encounter for the broad and phrase keywords they enter.

Small business advertisers can use the research methodology to study how to select keywords that generate traffic and revenue before spending their limited resources on bidding for keywords on search engines.

Finally, Google can use this research to enhance its search engine algorithm so that not only corporate sites but also popular small business and individual sites that are relevant to the search acquire top placements for broad keyword queries.

Future Research

It is difficult to envisage the future trends of advertising on search engines. This is particularly true for Google because its search technology is complex, multifaceted, and proprietary. In general, advertising trends are affected by the basic supply and demand theory, which is dynamic in nature. This concept becomes even more volatile when it comes to the Internet, due to the constant enhancement of technology to support new features.

Even though predictions are hard to make, there are some questions that, if examined carefully, can provide a better picture about the future of advertising on search engines. Researchers can use this study as a foundation to explore the following questions:

- how will the dominance of search engines and the competition to reach targeted audience shape the daily Internet experience of a user in the future?
- are there any checks and balances put in place to monitor how much control can be given to search engines over what can and cannot be searched?
- how is Google's popularity affecting the search engine industry?
- how long will the dominance of Google in the search engine industry continue?

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From : Suzy Bausch <Suzy.Bausch@netratings.com>
Sent : Thursday, August 10, 2006 5:05 PM
To : Tasnim Fidali
Subject : RE: Copyright permission

Hi Tasnim,

You're welcome to use the data on our Web site, please just be sure to source it correctly.

Thank you.

Best,
Suzy Bausch
Nielsen//NetRatings

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* Top Ten Share of Search Engine Click Throughs

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Subject : RE: Copyright premission

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From: Tasnim Fidali
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Subject: [press] Copyright permission
Importance: High

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. Google Analyst Day 2006. Retrieved April 3, 2006, from
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From the above articles the following graphs are included in the thesis
That is entitled An Evaluation on How Keyword Advertising Affects Google Search Results:

- . Ad Sales by Property Page-44
- . Traditional Marketers Page-50
- . 70-20-10 Product Framework Page-33

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Tasnim Fidali

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From : Kris Oser <KOser@emarketer.com>
Sent : Friday, August 18, 2006 8:43 PM
To : Tasnim Fidali
Subject : RE: Copyright request from Tasnim Fidali

Tasnim,
You have eMarketer's permission to use the data, articles and charts you listed below. Please source eMarketer on all the material you found on our Web site. Please tell me what the title of your thesis is.
Kris

Kris Oser
director of strategic communications
eMarketer
Direct: 212-763-6033
Cell: 347-439-0350
koser@emarketer.com
www.eMarketer.com
THE FIRST PLACE TO LOOK

-----Original Message-----

From: Tasnim Fidali
Sent: Friday, August 18, 2006 4:32 PM
To: Kris Oser
Subject: Copyright request from Tasnim Fidali
Importance: High

August 18, 2006

Dear Ms. Oser,

Thank you for your call this morning. I had sent you this email on the 15th and had copied you on the August 9th email that was addressed to Mr. Chapman.

I, Tasnim Fidali, am writing to request permission to copy the following illustrations for use in my Master's thesis in Mass Communications and Journalism at San Jose State University, California.

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* New Ways to Target Your Customer. (2006). Retrieved April 20, 2006, from
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* Marketing: Spending and Metrics. Retrieved April 20, 2006, from
http://www.emarketer.com/Report.aspx?search_marketing_apr06

From the above articles the following graphs are included in the thesis that is entitled An Evaluation on How Keyword Advertising Affects Google Search

Results:

* US Paid Search Advertising Spending Growth Increase vs. Prior Year

* Online Display Ad Impressions in the US from March 2005-2006

* Behavior Targeted Online Ad Spending in the US 2003-2008 (Millions)

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Sincerely,
Tasnim Fidali

Appendix A

Terms and Conditions of AdWords Program

Google's advertising terms and conditions in regards to products and services that cannot be advertised in the AdWords program.

Aids to Pass Drug Tests

Advertising is not permitted for the promotion of products such as drug cleansing shakes and urine test additives.

Alcohol

Advertising is not permitted for the promotion of beer or hard alcohol.

Anti and Violence

Advertisements and associated web sites may not promote violence or advocate against a protected group. A protected group is distinguished by their:

- Race or ethnic origin
- Color
- National origin
- Religion
- Disability
- Sex
- Age
- Veteran status
- Sexual orientation/Gender identity

Ad text advocating against any organization or person (public, private, or protected) is not permitted. Stating disagreement with or campaigning against a candidate for public office, a political party or public administration is generally permissible.

This standard applies to everyone who wants to advertise on Google, whether we agree with their viewpoint or not.

Bulk Marketing

Advertising of bulk marketing products is not permitted if the stated or implied use of the following products is unsolicited spam:

- Email lists that are not opt-in
- Bulk email software
- Bulk messaging

Cable Descramblers and Black Boxes

Advertising is not permitted for products that descramble cable and satellite signals in order to get free cable services.

Counterfeit Designer Goods

Advertising is not permitted for products that are replicas, or imitations, of designer goods.

Dialers	We do not permit advertising that is associated with dialers in any way.
Drugs and Drug Paraphernalia	Advertising is not permitted for the promotion of drugs and drug paraphernalia. This includes drug accessories, illegal drugs, and herbal drugs such as salvia and magic mushrooms.
Fake Documents	Advertising is not permitted for the promotion of fake IDs, passports, diplomas, and noble titles.
Fireworks/Pyrotechnic Devices	Advertising is not permitted for the promotion of fireworks and pyrotechnic devices.
Gambling	Advertising is not permitted for online casinos, sports books, bingo, and affiliates with the primary purpose of driving traffic to online gambling sites.
Hacking and Cracking Sites	Advertising is not permitted for the promotion of hacking or cracking. For example, sites must not provide instructions or equipment to illegally access or tamper with software, servers, or web sites. Advertising is not permitted for the promotion of sites or products that enable illegal access of or tampering with software, servers, web sites, cell phones or other communications or content delivery systems or devices.
Miracle Cures	Advertising is not permitted for the promotion of miracle cures, such as 'Cure cancer overnight!'
Mod Chips	Advertising is not permitted for the promotion of mod chips, such as devices that unlock copyright protection.
Prescription Drugs and Related Content	Web sites advertising prescription drugs or using prescription drug keywords may only target the US or Canada, and must be SquareTrade certified. Ads will not run until a valid SquareTrade identification number is provided. The SquareTrade program is only open to pharmacies based in the US or Canada. Please review our FAQ for further details, or review Google's Online Pharmacy Qualification Program.
Prostitution	Advertising is not permitted for the promotion of prostitution.
Sexual Content (Adult)	Advertising is not permitted for the promotion of child pornography or other non-consensual material.
Solicitation of Funds	Only government-registered charities may solicit funds. Political fundraising is generally permitted.
Tobacco and Cigarettes	Advertising is not permitted for the promotion of tobacco or tobacco-related products.
Traffic Devices	Advertising is not permitted for the promotion of radar jammers, license plate covers, traffic signal changers, and related products.
Weapons	Advertising is not permitted for the promotion of certain weapons, such as firearms, ammunition, balisongs, butterfly knives, and brass knuckles.

Appendix B

7Search Sample Keyword Result Page

Table 4 shows the keyword results page from the 7Search web site for the month of April 2006. The example is for the keyword, car insurance and includes the related keywords and the top five bids for each keyword.

Table 4: 7Search Sample Keyword Page

Click on a heading to sort by the values of that column.

<u>Keyword</u>	<u>Searches</u>	<u>Top Bid</u>	<u>Bid #2</u>	<u>Bid #3</u>	<u>Bid #4</u>	<u>Bid #5</u>
car insurance	892,661	\$1.11	\$1.09	\$0.99	\$0.98	\$0.97
insurance	561,939	\$0.75	\$0.74	\$0.73	\$0.70	\$0.69
health insurance	547,482	\$1.01	\$1.00	\$1.00	\$0.99	\$0.91
auto insurance	533,161	\$1.05	\$1.01	\$0.92	\$0.92	\$0.91
life insurance	390,784	\$1.11	\$1.02	\$1.00	\$1.00	\$0.98
term life insurance	197,547	\$0.96	\$0.95	\$0.94	\$0.93	\$0.91
business insurance	150,693	\$0.21	\$0.18	\$0.17	\$0.17	\$0.16
home insurance	139,297	\$0.77	\$0.76	\$0.75	\$0.73	\$0.72
auto insurance quote	126,664	\$1.11	\$1.10	\$1.09	\$0.99	\$0.98
insurance lead	114,574	\$0.42	\$0.41	\$0.40	\$0.37	\$0.35
insurance quote	84,409	\$0.90	\$0.89	\$0.88	\$0.81	\$0.80
travel insurance	83,060	\$0.26	\$0.23	\$0.22	\$0.21	\$0.13
car insurance quote	74,447	\$1.05	\$1.02	\$1.01	\$1.01	\$1.00
insurance company	72,637	\$0.43	\$0.42	\$0.41	\$0.40	\$0.36
dental insurance	70,508	\$0.17	\$0.12	\$0.12	\$0.11	\$0.11
house insurance	59,054	\$0.41	\$0.41	\$0.40	\$0.39	\$0.35
medical insurance	54,289	\$0.87	\$0.86	\$0.85	\$0.69	\$0.51
boat insurance	48,431	\$0.10	\$0.10	\$0.09	\$0.06	\$0.06
health insurance ca	47,129	\$0.91	\$0.90	\$0.45	\$0.44	\$0.40
renters insurance	46,632	\$0.28	\$0.28	\$0.27	\$0.21	\$0.20
free car insurance quote	44,006	\$0.68	\$0.61	\$0.56	\$0.50	\$0.48

life insurance quote	43,925	\$0.91	\$0.90	\$0.90	\$0.89	\$0.89
car insurance rate	42,875	\$1.05	\$1.00	\$0.99	\$0.93	\$0.92
cheap car insurance quote	42,823	\$0.60	\$0.55	\$0.53	\$0.50	\$0.46
insurance broker	42,231	\$0.39	\$0.38	\$0.35	\$0.25	\$0.22
online auto insurance quote	41,978	\$0.64	\$0.63	\$0.50	\$0.42	\$0.41