The Definitive Guide to Google AdWords

Create Versatile and Powerful Marketing and Advertising Campaigns

Bart Weller and Lori Calcott

Apress®

The Definitive Guide to Google AdWords

Create Versatile and Powerful Marketing and Advertising Campaigns

Bart Weller
Lori Calcott

Apress®

The Definitive Guide to Google AdWords: Create Versatile and Powerful Marketing and Advertising Campaigns

To Kathie, my wife, best friend, and companion, and our three kids, Frosty, Shaun, and Kirry. And to Mom, who instilled a lifelong love of learning and ideas.

–Bart Weller

This book is dedicated to all the people who kept the engines going while I tapped away. First, to my husband, Aaron, who spent countless hours in kitchen and changed countless diapers. You are the best teammate a girl could ask for. Thanks to Lindsay who not only made certain our business got off the ground but also kept it afloat at new heights.

–Lori Calcott

Contents at a Glance

Contents

About the Author

▥ **Bart Weller** is a software developer and writer. He lives in the Central Rockies of Colorado with his wife, two country cats, six misanthropic llamas, and dog Duffey (named in honor of the late John Duffey, former lead tenor with the Seldom Scene bluegrass band). He loves all kinds of music except for Heavy Metal and is a volunteer DJ at the local community radio station. His hobbies are clearing deadfall and fixing things. Among the people he admires are Albert Einstein, Alan Kay, Abraham Lincoln, George Carlin, Richard Feynman, and J.J. Cale. (Photo by Teryl Lundquist)

▥ **Lori Calcott** is a partner at webShine (`www.webshine.com`), a search marketing business in Aspen, Colorado that focuses on helping businesses increase revenue through online visibility.

Lori received a BS in Biochemistry from Pennsylvania State University in 1997. After graduating from college, she moved west and switched gears by landing in the Rocky Mountains and the world of marketing. Lori started in search marketing in 2001 while working for a start-up and handling "all things marketing." As a self-proclaimed PPC geek, Lori has transitioned through the paid search space from early days of paid advertising with Overture through Yahoo's Panama update and now works tirelessly to keep up with world of AdWords, MSN AdCenter, and Facebook marketing.

Lori lives in Aspen, Colorado, with her husband, Aaron, and two kids. She can be found playing with her family on the slopes and in the mountains.

About the Technical Reviewer

▦ **Christopher Klein** http://38alleys.com

Acknowledgments

Thanks to Mark Beckner, who got us started with this book while on the Apress Editorial Board. And thanks to Teryl Lundquist, who took the accompanying author's photo with his Best Llama, Paprika.

–Bart Weller and Lori Calcott

Introduction

We often hear that the Internet has changed the world. It has most certainly changed the worlds of advertising, retail, news, and magazine and book publishing, and Google has played a central role in this change. If one were asked to fill in the blank in the sentence "Google is a(n) _____ company" with what they feel is the most descriptive word, very few would choose the word *advertising*. A more likely choice would be *search* or *technology*. But in the context of its business regime and its revenues, an argument could be made that it is predominantly an advertising company.

One effect that online advertising has had on the Internet economy is enabling small to medium businesses (SMBs) to become viable participants in the online ad arena along with the heavy hitters. A small business with a limited ad budget—and with a well-tuned AdWords campaign—can compete with the big guns on the same Google search results page. This is because the real-time auction-based system used by AdWords for determining ad position uses both keyword and landing page quality scores, on the one hand, and keyword bids, on the other. And quality scores count for a lot in this system. This relatively new ad technology doesn't level the playing field entirely; big advertising budgets and the consequent ability of the large retailers to mount very effective campaigns still count for a lot. But the system does give the SMBs a better entrée than is the case with traditional media channels. Market analysts tell us that online consumer purchases continue to accelerate in comparison to in-store purchases, so we think this comparative leverage of the SMBs in the online arena can be expected to grow in importance.

Who This Book Is For

This book is for readers who are comfortable with computers and the Internet, and who have a reason and desire to get up to speed with the advertising side of Search Engine Marketing (SEM)—more specifically, Google AdWords. It doesn't cover Search Engine Optimization (SEO), the other side of SEM. We don't assume previous familiarity with AdWords, but by the time you finish reading the book, you should be comfortable with setting up and managing an AdWords account or working closely with a web marketing agency to manage your account. We see our primary audience as those who: a) own or manage SMBs and who would like to develop a strong and effective online ad campaign; b) work in online marketing; or c) would like to learn and understand AdWords technology for any other reason. The book is written at the beginner-to-intermediate level, but in many places it will require some focus and careful study. To make this easier, we often walk through examples of how to set up and use tools and interfaces in AdWords and Google Analytics.

Let us stipulate up front that AdWords is not simple. If you are new to the culture and vocabulary of online advertising, AdWords can seem … well, excessively complex and arcane. If anyone tells you that the AdWords system is simple, you should head for the door, keeping a tight grip on your wallet. Like most complex systems, AdWords takes time and careful study before you will begin to feel conversant with the system. But please take our word for it: if you invest the time and effort, you should be repaid with a higher level of comfort and understanding.

AdWords with Google Analytics are a powerful combination, and few if any books on the market address how the two can work in tandem. This book takes the extra step to explain where you can find data within Google Analytics to help you understand results from your AdWords campaigns. Understanding the capabilities of both tools and how they can work together gives you a more complete picture. We feel you shouldn't start an AdWords campaign without capturing data in Google Analytics for more in-depth analysis. If you have already ventured into the world of Google Analytics, this book should be a great jumping off point.

Things Just Keep Changing

One of the difficulties we've had to contend with in writing this book has been the rapid pace of change in online commerce and advertising technology. This is especially true in the cases of AdWords and Google Analytics. On any number of occasions, we have had to go back and rewrite sections of the book we thought we finished weeks earlier because of changes, enhancements, or new tools and features introduced by Google in the course of our writing. We don't expect this pace of change stop after the book is released, of course, which means that some of the things we describe may not entirely jibe with the current state of the AdWords system by the time you read this. There is nothing to be done about this, other to forewarn the reader. If you find some of the reports or interfaces in AdWords, Google Analytics, or other tools to look or perform a little differently than what you see in these pages, we recommend using Google's excellent help system to help you understand these changes. There are many places throughout the system ("Learn more" links or ⊙ question mark glyphs are one example) where you can find contextual help. The content of the book will usually convey the general intent and functionality of a feature or tool, even if some of the details have changed, so you should be able to use these help features to fill in the gaps when there are obvious changes not covered by the book. The AdWords Help facility (`http://support.google.com/adwords`) is an excellent resource for tracking down information, and the Inside AdWords Blog (`http://adwords.blogspot.com`) is a good place to go for announcements of new tools or enhancements.

Conventions

As with most Apress books, there are up to five levels of headings throughout this book. Chapters are organized into hierarchical sections, and each section has a heading according to its level. Here is what each heading level looks like, going from the highest to the lowest level:

Heading Level 1

Heading Level 2

Heading Level 3

Heading Level 4

Heading Level 5

As a rule, there will be a few major sections in each chapter, each with a level 1 heading, under which there will be a number of level 2 headings, and so forth. Following the Apress style guidelines, we don't number the sections, but you should be able to tell what level a particular section is at simply from the heading.

We often discuss or present procedures in an informal exercise format, so that the reader can follow along in their own AdWords or Google Analytics account. For this reason, we recommend that you create these accounts early on if you don't already have them. Because of the wealth of different features and facilities, and the large number of tools available, there is a lot of learning value in working hands-on with the interface. Occasionally we will have a section called "The How-To" for more involved or detailed procedures. Here again, following along on your computer is a good way to go.

We often use a lot of short hypothetical examples to help illuminate a feature or facility. However, many of the figures or screen shots in these discussions are taken from reports and screens of real-world accounts. This helps make the illustrations in the book more realistic, but in many cases we have obscured or grayed-out any information that could identify a client, for obvious reasons. We hope this doesn't detract from the illustrative value of the figures, but if it does, we ask for your forgiveness in these occasions. We're sure you understand the necessity of protecting client identities.

Contacting the Authors

Should you have any questions or comments—or spot a mistake you think we should know about—you can contact either of the authors at the following e-mail addresses:

Bart: wellerbart0@gmail.com
Lori: lori@webshine.com

SEM and the Google Ecosystem

This chapter provides an overview of Internet marketing technology, and more specifically what pay-per-click and search engine marketing are all about. Since you have this book in hand, you probably already have at least some knowledge—and perhaps some experience—in this area, but it never hurts to step back and review the subject from a high-level perspective. Internet marketing is still a rapidly evolving field in terms of the technology and its application. As with all technologies, it has developed its own culture and vocabulary.

A Short History of Search Marketing

Marketing (in the shape of advertising) has been with us for a long, long time—thousands of years, in fact. Many scholars of marketing history speculate that the town crier probably represents the earliest form of advertising, plying his craft well back into prehistoric times. A written ad distributed in Thebes around 3,000 years ago asked for the return of a slave: "... For his return to the shop of Hapu the Weaver, where the best cloth is woven to your desires, a whole gold coin is offered...." In the ancient ruins of Herculaneum, destroyed in the eruption of Mt. Vesuvius in 79 AD, there is a wine shop with a mural showing differently colored wine flasks with a price next to each.

Targeting

One trend that has been consistent over the ages is that advertisers have had increasing opportunity and capability for targeting their audiences. In the days of the town crier, most within earshot heard what he had to announce… er, cry. When pubs and shops in medieval London hung out their shingle over the sidewalk, they were visible to all who happened to stroll by—commoners and lords, adults and children alike—no targeting whatsoever, except, perhaps, by proximity. As the printing press caught on, some forms of targeting began to happen, but primarily in the way content was distributed. Nearly every newly

invented form of communication (except perhaps the telegraph—what we might call a *unicast technology*) eventually became a medium of commercial persuasion.

Radio and television are broadcast media but they lent themselves only to the most imprecise forms of targeting in the early days. All who tuned in heard the same ad for Martha White Hot-Rize Biscuits regardless of their demographic. The same could be said of early television. But with the advent of cable, this began to change, since cable allowed for somewhat more focused demographics: your chances of seeing an ad for the Acme Turkey Baster on the DIY channel were slim, but much better on the Food Network. This form of marketing is sometimes called *niche marketing* or *narrowcasting*.

Internet Marketing Arrives

However, our interest lies with the most recent of these communication technologies: the Internet. Often called the "information superhighway" in the early days, the Internet began life as ARPANET, a communications network for academics, researchers, and government agencies because it was created under the auspices of ARPA (which is now DARPA, the US Department of Defense Advance Research Projects Agency). DARPA also developed the TCP/IP Internet communication protocol.

It's a good bet that the first online ads appeared in the last quarter of 1994. This is the year Mark Andreessen and Jim Clark started the company that morphed the Mosaic web browser into Netscape. The date was in April of that year; by October, HotWired (now Wired.com) had developed the idea of banner ads, launching ones for the likes of AT&T, Sprint, MCI, Volvo, Club Med, 1-800-Collect, and Zima on its web site. Time-Warner, also in October of '94, launched the Pathfinder portal with test ads from AT&T. 1994 was also the year CompuServe and America Online (AOL) launched their portal services.

The number of web sites grew rapidly in the mid and late '90s, and with this growth came the need for search capability. Search engines like AltaVista, Lycos, and Infoseek began to appear, and the opportunities for ad targeting started to move to a different plane altogether. Like all businesses, these search engine companies needed to monetize their services.

Enter Pay-Per-Click

Pay-per-click (PPC) arrived with a program offered by OpenText in 1996 and GoTo.com, a spinoff from IdeaLab in Pennsylvania, in 1998. This was the same year that Stanford computer science grad students Larry Page and Sergey Brin founded Google as a privately held corporation.

In 2000, Page and Brin were still looking at the question of how Google could become profitable. Google was rapidly developing a reputation and user base because of the perceived quality and speed of its search technology. This placed it in a good position to generate significant revenues by showing sponsored ads on its search engine results pages (SERPs). This approach was similar to an approach called the paid-placement model developed by Bill Gross at the aforementioned GoTo.com. The ads could be placed according to the context of the user's search, combined with an automated auction process to determine the placement of the ad on the search engine results page.

Google tried to negotiate an arrangement to license the technology from GoTo.com, but an agreement was never reached. As a result, Google moved forward with its own search placement ad technology. GoTo.com changed its name to Overture in October, 2001. GoTo was acquired by its biggest customer, Yahoo! in 2003. Early in 2002, prior to this acquisition, Overture had initiated a patent infringement action against FindWhat.com and Google.

After Yahoo!'s acquisition of Overture, Google decided to settle the lawsuit under an agreement to issue 2.7 million shares of common stock to Yahoo! in exchange for a perpetual license. The fact that Google was on track to an IPO was clearly a motivating factor for settling the case. The rest is history, as they say.

Targeted Marketing on the Internet

"Targeting" can have a number of meanings, so let's narrow it down. The way we have used it so far could be more or less equivalent to demographic focusing based on age, gender, education, etc. But targeting using Google's AdWords or AdSense technologies is different, so let's consider what actually happens in Google's system.

Here's a very quick summary of what happens in Google's system, and more generally in online paid placement marketing: someone enters a search phrase (keywords) in a search box, and a search engine results page appears with some text ads on the right side and perhaps the top. Which ads appear is determined by the interplay of the following three things:

- **The search keywords the user enters:** Normally, the user has entered these keywords because she feels they represent her search intent. (User search skills can vary over a wide spectrum.) On occasion, the user may be interested in the ads as well as the organic search results.

- **The campaign settings selected by advertisers:** Options include the bid cost-per-click (CPC); the keyword phrases advertisers select for their ad groups and campaigns; negative keywords; topic targeting; geographic targeting; time and day settings; and a range of other constraints and settings (see Chapters 5-7).

- **Google's AdWords technology:** AdWords takes the two previous items and then does some magic to determine which ads will appear on the search engine results page and in what order. (We use the word "magic" advisedly because not all of Google's technology and algorithms are transparent. In fact, some are very closely held secrets.)

- An extensive regime of disciplines, technologies, standards, and state and federal statutory and regulatory frameworks has developed relating to the area of online marketing. It's impossible to cover all of these subjects in depth, but we will touch on some of the important areas and provide pointers to outside resources later on if you're interested in learning about these subjects in detail.

The following section talks about a case study that demonstrates how tightly focused a Google ad campaign can be.

Find Your Dream Job with AdWords (and $6.00)

Here's how one person put together a quick AdWords campaign to land his dream job. In early 2010, Alec Brownstein was an advertising copywriter working in New York City. He wanted to find a more interesting job than the one he had. After doing some research, he decided the creative department at Young and Rubicam was the place. He picked five creative team executives in Y&R's creative department: David Droga, Tony Granger, Gerry Graf, Ian Reichenthal, and Scott Vitrone.

Alec then set up five Google AdWords campaigns, one for each of the creative directors. He bid 15 cents each for each of these five keywords. The ads would read: "Hey <creative director's name here>, Googling yourself is a lot of fun. Hiring me is fun too." The URL on each ad pointed to Alec's web site, where there was a link to his portfolio (see Figure 1-1). Four of the five creative directors thought the experiment showed a lot of creativity—enough so to invite Alec in for an interview.
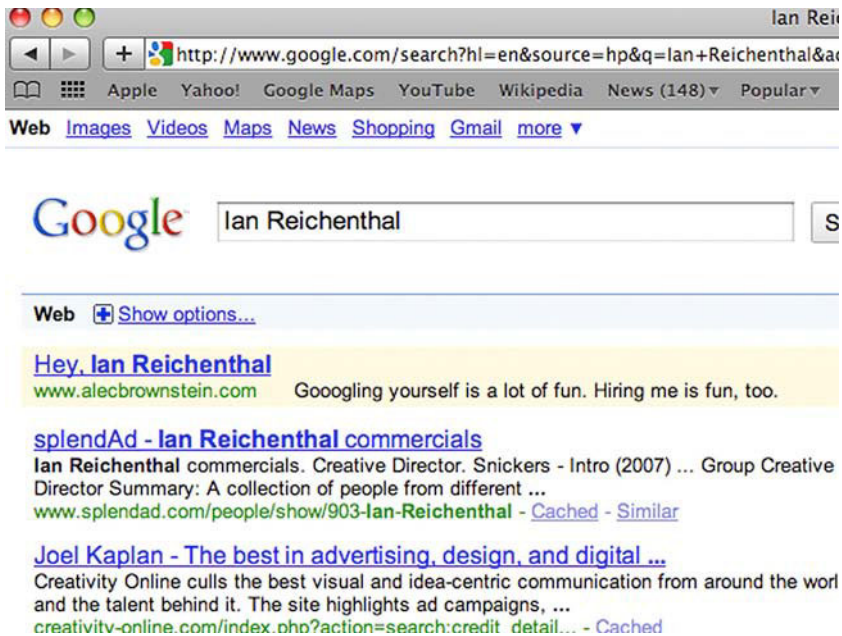
Figure 1-1. *Google SERP for Ian Reichenthal with Alec's ad in the top position*

After the interviews, Ian Reichenthal and Scott Vitrone both offered Alec a job, and he accepted. His total cost for the campaign was $6.00.

Alec's story demonstrates how cost-effective online advertising can be, especially with a technology like AdWords that enables a tightly focused campaign. AdWords allowed Alec to target his ads directly to the five people he wanted to reach. Four of the five invited him for an interview, and two offered him a job—not a bad ROI for a small investment of effort and dollars. The important components here were Alec's creativity, sense of humor, and his imaginative use of search-engine marketing.

Search Engine Marketing

Pay-per-click is part a larger umbrella of marketing called search engine marketing (SEM). SEM refers to the process of promoting web sites through visibility in the search engines, which can happen in two ways.

- **Paid search:** The most typical form of paid search is pay-per-click (PPC) or cost-per-click (CPC) marketing. This book talks about Google AdWords, a PPC technology where advertisers are able to place ads targeted according to user keyword searches on Google and/or on their network of products and sites. The second biggest player after Google is the Microsoft adCenter which powers pay-per-click ads on both Bing.com and Yahoo.com and their content partners. We will talk more about the different forms of paid search in the section on ad models.

- **Search engine optimization (SEO):** This involves the use of techniques to improve the relative placement of your site on organic search results pages. Search engines crawl the Internet using sophisticated algorithms to rank sites. There are a wide range of *white hat* and *grey hat*[1] techniques used by consultants and SEO agencies. SEO involves both improving the technical aspects of your site to ensure it is "search engine friendly" and aligns with search engine algorithms through off-site optimization tactics such as link building. Search engine algorithms such as Google's include a variety of ranking factors. Backlinks are a major component as is the amount of crawlable content on a site and—more recently—signals from social media sources like Facebook and Twitter. Another component of SEO is local search, which focuses more specifically on a web site's visibility for searches related to location. SEO is seen as the marathon event of SEM and requires ongoing work to obtain and maintain rankings. In contrast to paid search, SEO ranking results are referred to as organic or natural rankings.

PPC and SEO complement each other and both programs should be managed with consideration of the other. PPC is a great way to see results quickly while also having full control over when and where your ads are displayed. SEO can feel like playing a game where you don't know the rules. Before diving into a lengthy and time-consuming SEO campaign, PPC can often be a great source of reliable data.

It's All about Targeting

So the takeaway from Alec Brownstein's Google AdWords experiment is that we have the technology—and hence the opportunity—for very tightly focused and cost-effective ad campaigns. Of course, some situations lend themselves to extremely focused targeting, and some don't.

The online and search-engine marketing arena has been characterized by intense competition (even with Google's dominance over the last five years) and rapid technical changes. Even a cursory look at the history of this sector of the Internet economy shows it has been controversial. No one could hope to grasp in its entirety the growing body of court cases, regulations, and case law in this field. Google, Yahoo!, and Microsoft—not to mention many other search providers—have been involved in litigation, patent disputes, and regulatory actions involving billions of dollars of fines, settlements, and attorney fees.

The rest of this book will focus on the technical aspects, primarily dealing with the Google side of things, but it's a good idea to keep these nontechnical aspects in mind as you get up to speed with this subject.

There are many ways that businesses wanting to conduct online advertising campaigns can "target" people searching the Internet, so let's survey some of the lexicon. There are two broad areas to keep in mind when learning about this subject, and they are closely related. One is the ad model, or ad technology; the other is the revenue model, or the way the ad network (e.g., Google) generates its revenues.

Let's start with ad models.

---

[1] For those who may be unfamiliar with this vocabulary, "White Hat," "Black Hat," and "Grey Hat" are terms used in the computer security community to describe the intentions, techniques or philosophies of hackers. The White Hats are those who uphold ethical standards and don't use illegal or disallowed methods; the "Black Hats" are those who act with unethical or criminal intent or use illegal methods; and the "Grey Hats" are those who fall somewhere in between – sometimes using potentially harmful methods to point out security risks in systems to parties who would otherwise be unaware of these weaknesses. In the SEO arena, one would hope that the Black Hats are a rarity, but the use of ethically hazy approaches, such as hidden text to trick search engines, isn't unheard of.

Ad Models

We could enumerate a large number of ad and targeting models, but for the purposes of this book, we will focus only on those relevant to the Google ad technologies.

Pay-for-Placement (P4P) Ads

Pay-for-placement is the dominant model for search-based ads and is used (with some technical variations) by Google AdWords, Facebook, Microsoft adCenter (formerly MSN adCenter), and—until October 2010—Yahoo! Search Marketing. Note that Microsoft adCenter acquired Yahoo! in early 2010, and PPC ads on Yahoo's search network transitioned to Microsoft Ad Center on October 26, 2010. The compensation model nearly always associated with P4P is PPC, which we will talk more about in the following section on revenue models.

Contextual Ads

Contextual ads are based on keywords contained within the content of the page. In the case of highly dynamic web pages, such as blogs or news, the ads will change as the content changes. The revenue model applied to contextual ads is usually cost-per-mille (CPM), or cost per thousand impressions. Sometimes pop-up ads will be used with contextual ad technology, but Google doesn't allow pop up ads, either with AdWords or AdSense. Contextual ads can occasionally result in inappropriate or embarrassing juxtapositions of ads with web pages, but Google is improving its ability to avoid these situations.

Behavioral Targeting

Behavioral targeting is an ad technology based on gathering and aggregating information to infer user preferences from online behavior—pages visited and searches made. The data involved may extend over a single browsing session, or it may extend over a considerable time, involving cookies and click tracking. *Online behavioral advertising* (OBA) is another term often applied to this form of marketing.

This has been one of the more controversial forms of online ad technology, largely because of the privacy issues involved. Behavioral targeting can be combined with other ad technologies, such as contextual ads, to more precisely focus the ads displayed.

The US Federal Trade Commission (FTC) has regulated OBA since online marketing began to grow in the mid-1990s. Late in 2010, it proposed a legislative framework to protect consumer data privacy, which included a "Do Not Track" mechanism. The FTC has also issued a number of reports and conducted several workshops on the subjects of both industry self-regulation and federal regulation.

Google's "interest-based" advertising is a particular form of behavioral targeting. Many commercial web sites, blogs, news sites, and advertising networks (i.e., Google or AOL) engage in behavioral targeting.

Semantic Targeting

One issue with contextual targeting is that the process is relatively unintelligent, since it relies on keyword analysis of web page content. For example, using this form of targeting, your display ad may sometimes appear on a web page with inappropriate content or content that can otherwise damage your branding effort. Semantic targeting provides a way of avoiding these kinds of harmful placements.

The concept of semantic targeting emerged from ongoing efforts to develop the Semantic Web (sometimes called Web 3.0), a concept first proposed by Tim Berners-Lee, originator of the World Wide Web standard. It relies on embedding structured data (such a price, availability, physical specifications, etc.) about your offering within your web page's HTML. Automated systems can work with this data to achieve better performance than can be had with contextual and behavioral targeting.

In mid-2011, Google was apparently encouraging the use of a lightweight e-commerce web vocabulary called GoodRelations (`www.heppnetz.de/projects/goodrelations/`) for those businesses interested in using semantic targeting technology. Yahoo!'s Search Monkey facility also adopted the GoodRelations vocabulary, but Yahoo! deprecated Search Monkey when their search service was transferred to Microsoft adCenter in October 2010. Microsoft's Bing also announced it would support GoodRelations at some point in the future. The vocabulary is currently in use for the web pages of a number of large e-commerce vendors, including BestBuy, Overstock, O'Reilly, Sears, and Kmart.

In Q3-2011, things on the semantic targeting front took a turn when Google announced its participation in the schema.org approach to web product markup using the *microdata* format. Microdata is a set of tag standards that facilitates the semantic description of products, services, or other entities within web page XTML; it was developed as part of the HTML5 specification (see Chapter 9). Schema.org has announced it may support other types of vocabularies in the future, such as microformats and RDFa.

When it was created, Schema.org was a consortium of Google, Microsoft, and Yahoo! The respective search engines of these "Big 3" support the use of the microdata format. The ongoing participation of Yahoo! is uncertain because of the aforementioned transfer of Yahoo! Search Marketing to Microsoft adCenter in October 2010.

Semantic data can also be conveyed in web pages via RDFa (short for Resource Description Framework-in-attributes). Google has had a policy of not showing content that isn't visible to the user. (This statement doesn't make sense on the face of it, but read on.) With the advent of semantic information that may be invisible but that may have legitimate purposes, things have become more complicated. Here's what Google has to say on this matter:

▓ **Note** In general, Google won't display content that is not visible to the user. In other words, don't show content to users in one way, and use hidden text to mark up information separately for search engines and web applications. You should mark up the text that actually appears to your users when they visit your web pages. However, in some situations it can be valuable to provide search engines with more detailed information, even if you don't want that information to be visible to the people who visit your page. For example, providing the latitude and longitude of a venue can help Google ensure that it is correctly mapped; providing the date of an event in ISO date format can help ensure that it appears correctly in search results. In this case, you can use the `content` attribute to indicate that the rich snippets parser should use the attribute value to find the start date of the event. [2]

Google provides a facility called *smart snippets* that can be used to convey this type of information to the search engine. If a web page involves an event date, such as a registration deadline, the `content`

---

[2] Google Webmaster Tools Help, "About RDFa," `www.google.com/support/webmasters/bin/answer.py?answer=146898`.

attribute (as mentioned previously) can be used in a smart snippet to convey the date in ISO date format to the rich snippets parser so that the date appears correctly in search results. The following is an example of a smart snippet conveying a date:

```
<span property="v:dtend" content="2011-11-15T19:00-07:00">15 September 2011, 7PM</span>
```

Google continues to support at least four ways for conveying semantic data to the search engine: microdata, rich snippets, microformats, and RDFa. With its recently announced participation in the schema.org coalition, it appears to be going with the microdata format as the schema of choice.

Location Targeting

Location targeting involves targeting audiences based on their location or their geographic area of interest. In the context of the Google ad network, the terms used are Location of Presence (LOP) or Area of Interest (AOI). Table 1-1 shows an example of how location targeting can be used to display an ad based on the user's location, area of interest, and query. The search engine is normally able to determine the user's LOP.

Table 1-1. Use of Location targeting to Control Ad Visibility (*Source: Google.com*)

Target Method	User Location (LOP)	User Query	User's Area of Interest (AOI)	User sees Ad
LOP only	Denver Flowers			✔
	Pennsylvania	Flowers in Denver	Denver	🚫
AOI only	Denver Flowers			🚫
	Pennsylvania	Flowers in Denver	Denver	✔
LOP and AOI	Denver Flowers			✔
	Pennsylvania	Flowers in Denver	Denver	✔

LOP- and AOI-based location targeting can be set for an ad campaign in the `settings` field of the campaign. Settings can also be used to exclude certain LOPs or AOIs.

Location targeting settings apply to searches within the Google Search Network, but not the Google Display Network. (See the next section for definitions of these two Google Networks.) We discuss location targeting in detail in Chapter 5. Google provides many other forms of targeting features (e.g., age, gender, schedule, mobile carrier, and platform) within its API and the CampaignTargetService. We have included this section on geotargeting here because of its relative importance.

Revenue Models

Here is a brief list of the important revenue models used by online ad networks. The most frequently used systems are the top three in this list: PPC, CPM, and CPA. One important consideration in reviewing how these different models work is how cost risks are allocated between the advertiser and the ad network.

- **Pay-per-click (PPC) or cost-per-click (CPC):** Under this model the advertiser pays only when the user clicks on the ad and is redirected to the advertiser's web site. This means, of course, the advertiser doesn't pay when the ad is displayed on the SERP. This allows the advertiser or his consultant or agency to performance tune the campaign without incurring the costs associated with pay-per-view (PPV; see the later section). PPC is the predominant model for search ads and is the revenue model used by AdWords, Microsoft adCenter, and Yahoo! Search (now merged with adCenter). Some display ad systems also use PPC rather than CPM.

- **Cost-per-mille (CPM) or cost-per-thousand (CPT):** This means cost per thousand impressions. An impression is defined as a single display or exposure of the ad to a user, but some systems may not count an impression if the user reloads the web page where the ad is placed or takes some other action that results in reloading the page and the ad.

- **Cost-per-action or cost-per-acquisition (CPA):** Under this system, the advertiser pays only when the user completes a transaction. Clicks and impressions cost the advertiser nothing if they result in no further action on the part of the user. CPA is often used in the affiliate-marketing sector of the online ad business. The publisher assumes more risk under this model. An alternative name for this system is **pay-per-performance (PPF)**. Some subtypes (or other name variations) under this system include **cost-per-sale (CPS) or cost-per-order (CPO) or pay-per-sale (PPS)** and the advertiser pays only for each sale.

- **Cost-per-lead (CPL):** The advertiser pays each time the user provides enough information—by filling out a form or by registering for a white paper, e-mail updates, or a newsletter—to establish a sales lead.

- **Cost-per-engagement (CPE):** Under this scheme, the advertiser pays not when the user clicks on the ad or when the ad is presented, but when the user engages with the ad in some way, such as by playing a video or engaging with an interactive component of the ad.

- **Pay-per-view (PPV) or cost-per-view (CPV):** Under this scheme, advertisers pay for each view by the user of an ad or a web site. This is usually applied to pop-up, pop-under, or interstitial ads. *Interstitial ads* are web pages that appear "in between" one web page and the next. At first blush, the PPV model would appear to be equivalent to the cost-per-click model, but this is not the case. Pop-up, pop-under, and interstitial ads are presented without the user clicking on anything. Pop-ups and pop-unders are often presented as a result of adware having been installed on the user's computer or by JavaScript. Google has a stated policy against these types of ads, and AdWords and AdSense don't support them.