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Analyzing Your Traffic

Discover your site's findability triumphs and tragedies with traffic analysis systems.

Maybe you've seen one of those popular TV shows that follow forensic scientists as they solve gruesome crimes through intelligent analysis of facts. The investigators make careful observations, collect data, and tie it all together to build a story that reveals the details surrounding the events of the crime and the individuals involved.

Although less glamorous and certainly less gruesome, analysis of traffic on a website is a lot like a crime scene investigation. Using sophisticated tools you can gather and analyze data that provide clues as to what's happening on your site.

You can weave this story using a series of sophisticated traffic analysis tools. They'll help you learn how people find your site, what keywords are generating the most traffic, how long visitors stay, what causes them to leave, and how often they return so you can evaluate the success or failure of your findability initiatives. The data you gather with traffic analysis tools will provide fascinating insight into your audience and their behaviors on your site.

Just as all good investigators must have a mastery of their craft in order to solve a case, you'll need to understand the meaning and significance of your traffic data in order to apply some forensic-style deductive reasoning and turn the data into knowledge of your users and their experience on your site.

Traffic analysis will provide cold, hard facts that will not only reveal the degree to which your site is findable, it will also identify usability shortcomings, ineffective visual design, and even some programming errors. It lets you put your site under the microscope so you can diagnose and fix problems that adversely affect findability and the user experience.

Turning Data into Knowledge

Each bit of data collected by traffic analysis tools carries some meaning, but not all are equally valuable. Before examining the best tools to monitor activity on your site, it's important to know what each data point is telling you, and for which clues you should look. An understanding of individual statistics empowers you to draw connections between them, revealing the hidden story trapped within.

The Myth of Hits

People love to brag about the copious amounts of hits their site receives. Many poorly designed traffic analysis tools prominently display hit statistics, which mislead webmasters into believing their site has thousands of visitors daily. In reality, a hit is a rather meaningless bit of data that has nothing to do with unique visitors on a website.

A hit simply indicates the number of files that have been requested from your server as your users browse your site. A page with five images, one external style sheet, and two external JavaScript files will generate a total of nine hits—one of which is from the HTML file itself. If you do the math, this means one user visiting one page generates nine hits.

You can see how this data might be exceptionally misleading if it's perceived to indicate the number of visitors to your site. It's a heartbreaking realization when you discover the astronomical number of hits your site is receiving doesn't indicate your site's traffic volume.

So what use is this data? The answer is, not much. The only real value you could gather from it is by comparing your hits to your page views. If only five pages are viewed but 200 hits are generated, you could conclude that you might have too many external files included on your pages, which is probably negatively impacting load times. But you could have figured this out before launching your site using YSlow to evaluate your site's performance, as Chapter 3 pointed out in the section entitled "Diagnosing Performance Problems with YSlow."

Don't be misled by hit data. Chances are what you really want to know is how many unique visitors are coming to your site.

Unique Visitors

The number of unique visitors to a site is an alluring statistic because it indicates how broadly your message is being disseminated. It's also a point of curiosity because it feels a bit like a popularity score. When throngs of people visit your site it feels like a congratulatory pat on the back because it indicates that your site is easy to find and valuable to those who visit. If few people visit, it feels like you're the runty kid who wasn't picked for dodge ball.

It's a very ego-driven statistic that many people monitor addictively. This statistic is a bit like the heartbeat of your site, indicating its overall findability health. Watch for extreme dips in unique visits, which might indicate that your server

is not online or taking periodic breaks, thus hindering traffic. Neglecting your blog or content updates could also cause a big dip in your unique visitors.

Sharp spikes in traffic might mean you've received a significant inbound link from a popular site, in which case you might want to add new content to better capture the interest of new visitors.

When charted through time, you want to see the number of unique visitors to your site steadily increasing. The way to achieve that upward slope is by continuing to produce new content that's relevant to your audience, and promoting your site in order to reach new users. Findability is an iterative process that is most successful when diligently pursued on a regular basis.

Traffic analysis systems track unique visitors in one of two ways: They either check the user's IP address, or they set and look for a cookie in the user's browser.

Systems that use IP addresses to discern unique visits tend to be very inaccurate, as many users on the same network might share an IP, thus misreporting the number of unique visits. AOL users share an IP originating from Virginia, which will make IP-based unique visitor statistics meaningless.

Cookie-based tracking is much more accurate. JavaScript embedded in each page of a site looks for a bit of temporary information stored in the browser that indicates the date and time of the user's last visit. If the cookie is not found when the user arrives at the site, then the system sets it and makes note of the new visitor.

This cookie approach also makes it easier to track the time the users spend on the site and when they return it will help identify them as repeat visitors.

Return Visitors

Return visitors are simply people who like your site enough to visit more than once. This bit of data can clue you in to how valuable your content is to your users, and how loyal they are to your site.

If your content is moderately useful you might observe in your stats that people hang out on the site a bit, browsing more than one page, but maybe not returning very often. Exceptionally valuable content is indicated by how frequently your visitors are returning.

Some content inherently generates a great deal of return visits, such as complex how-to topics, quick reference content, directions, and contact info.

Some traffic analysis tools will let you know the average time return visitors spend on your site and the average number of pages they view. If you see a very low page view average, then your return visitors are probably just stopping back to quickly refer to information they've already seen.

Page Views

Page view data provides interesting information about the quality of your content and the usability of your site when compared to the number of unique visitors.

A very high number of page views with a low number of unique visitors might indicate that it takes too many clicks for your users to navigate your site. A very low number of page views and high number of unique visitors indicates that your visitors aren't navigating your site much, and are often leaving immediately.

In order to figure out if your high average of page views per visitor indicates success or a usability shortcoming, revisit your return visits statistics. If you're getting a lot of return visits then the high page view average probably means people find your site useful. A low return rate probably means they were so frustrated by the excessive clicking required to find what they were searching for that they left—never to return.

As you analyze the average number of pages viewed per visitor, take into consideration the quantity of content on each page of your site. If you have very content-saturated pages users may only need to visit one or two pages to access the information they seek. This might cause a low average of page views per visitor, but might not necessarily indicate a problem.

If you find some visitors are staying much longer than others, take a look at how they arrived. Visitors referred by a search engine using keywords only vaguely related to your content probably won't stay long, and are not likely to be in your target audience. Visitors who find your site via a link on an affiliate site may stay longer, because your site's content is relevant to what they were viewing previously. This type of user is more likely to be within your target audience, and therefore their click path through your site should be monitored closely to learn where they linger, and where they leave the site. These are clues revealing which content is most relevant to your audience, and what causes them to leave.

As is the case with all traffic data, there's not a single target number or ratio you should aim for as you analyze your page views. Each site is different with

unique content and goals. You should always keep in mind your site's objectives, and then try to relate the information you're gathering back to them. Traffic analysis is as much an art as it is a science.

Bounce Rate

The rate at which visitors leave a site immediately upon arrival is called the *bounce rate*. It's a very important number to watch as it can point to serious problems in a site's design, content, or organization.

Traffic analysis tools will often show your site's overall bounce rate, and sometimes even break it down to tell you which pages and keywords have the highest bounce rates. A healthy bounce rate is somewhere between 40 and 60 percent. Anything lower is excellent.

This might sound crazy that your site is doing well if 40 to 60 percent of the people who find it leave immediately. But there's no way your site can everything to everyone. People move through the Web like a giant labyrinth, often taking wrong turns toward content that doesn't meet their needs. Your site is bound to be a wrong turn for hundreds of people. Just make sure it's the right turn for your target audience and you'll be able to keep your bounce rate at a healthy level.

When you spot keywords and pages with low bounce rates, try to determine why they are so successful. Is it the design of the page? Perhaps it's the relevance of the keyword to the overall intentions of the your site.

Whenever you spot large numbers of unique visitors to your site, be sure to check your bounce rate. If all that traffic is leaving upon arrival, you may be celebrating a false triumph.

Some sites like Digg.com are notorious for directing to sites large volumes of traffic that leave immediately, sending your bounce rate through the roof. But don't get discouraged if this happens. Many of your new visitors may have subscribed to your RSS feed before leaving your site so keep tabs on your subscriptions stats to get a clearer picture of success. Methods for gathering RSS subscription stats will be discussed later in this chapter.

Referrers

Knowing how traffic is arriving at your site is exceptionally useful, as it indicates which inbound links, search terms, or marketing campaigns are working best. Your diligent SEO efforts will be visible in your referrers data, where you'll find out just how much traffic to your site is coming from search engines.

Of course high search engine referrals are good, but many referrals from other sites are even better as they indicate that you've successfully built inbound links, which will help improve your search engine rankings and send you traffic that is more likely to stay on your site longer.

Some traffic analysis systems will show you the number of referrals from individual domains in addition to individual referring URLs. This is useful because when a blog links to your site it might produce inbound links from its home page, RSS feed, and permalink pages. Although all of the inbound links are from the same domain, each has a unique URL—making it more difficult to analyze your referrals.

Watch for new, unique referrals to your site, which can reveal new discussion board posts, blog posts, link libraries, and any other site that enjoyed your content enough to link to it and tell others about it. Inbound links from social networking sites like Delicious, Magnolia, Facebook, and Digg indicate that your URL is being viral spread to new users.

You can assess the value of each referral by looking at the how long users from referring sites stay, and whether they visit target sections of your site. Lots of inbound traffic that leaves immediately isn't such good traffic after all. A good referrer sends users to your site who will stay a while, move throughout the site, and hopefully complete a goal such as making a purchase or signing up for your mailing list.

Session Tracking

A user's path through your site is called a *session*. *Session tracking* provides detailed information about what your audience is doing on your site. It illustrates from which referrer a user was sent, which pages they navigated, and how long they lingered on each page. In some traffic analysis systems you'll even see the keywords used in a search referral, which you can compare to the session duration to determine which terms are serving you best.

Look out for short sessions with few page views, as this might indicate users are becoming frustrated, confused, are turned off by the design, or aren't finding the content they want on your site. The best way to diagnosis the problem is by making small changes in the design or organization of your content and watching your session stats. If your low numbers persist, repeat the process until you can pinpoint what's driving away visitors.

Popular Search Terms

Each search term that generates a referral from a search engine can be tracked by traffic analysis systems. You can validate or invalidate all of your keyword research and targeting by watching what terms are actually generating traffic to your site.

Inevitably you'll discover new, niche terms that are generating a good deal of traffic but weren't targeted initially when the site was launched. You might want to revisit some of your content to better integrate these new terms to increase your search traffic even more, especially for keywords that are generating traffic that stays on your site for long sessions. This indicates you've discovered a keyword that accurately describes your content in the minds of your audience.

Popular search terms are also a good barometer of how well the content on your site is serving your audience's interests. If you spot a keyword trend you could write a new blog post or article to provide more depth to a sought topic.

There's no better keyword research than watching real world trends on your site.

Local Searches

Some traffic analysis tools can log local search activity, providing you interesting insight into your users' content cravings and which content is hard for users to find.

If you see recurring themes in local search terms, it might be a good idea to make this content more prominent or adjust your design to direct your users' attention more effectively. Be sure to watch local search term data closely after a redesign in order to diagnose and fix usability and findability problems that may have arisen.

Although search engine keywords point to findability successes that are generating traffic, local search terms usually indicate your site's findability shortcomings. If your users regularly search for important content, your design and/or information architecture aren't working the way you thought they would and need to be changed. Be aware that because search has become such an integral part of exploring the Web, some users simply navigate a site with search queries instead of using a global navigation system. Isolated instances of local searches for content you've done your best to highlight might simply indicate a user's preference for query-only navigation.

Popular Pages

Page popularity suggests where you should direct your content development efforts to best suit your audience's needs. Traffic analysis tools capture the text in each page's `<title>` tag when logging popular pages. To make it easy to read, place the page name at the beginning of the `<title>` tag text, followed by the section name and site name. You can find more on how to structure your `<title>` tags in Chapter 2 in the section entitled "Essential Tags that Promote Findability."

If your site contains a variety of content targeted towards different audience segments, page popularity data can show you which audience is most active on your site. Page popularity can also indicate with which keywords and phrases you're ranking best with in search engines. If you see a page that is a popular entry point, check your referrals and popular search term data. You might discover you've achieved top search rankings with some of your targeted terms.

Click Overlay

A good designer does her or his best to direct users' attention to the areas of importance in a page in order to achieve target objectives. But sometimes, even with a sophisticated sense of visual design and a good understanding of the target audience, a design can fail. There's no better way to evaluate the successes and failures of a design than with a click overlay.

Click overlays show traffic stats on top of a page design to reveal where people are clicking, and how often. All of the assumptions you and your team may have made about the findability of your content, the usability of your interface, or the visual design of your pages can be directly evaluated by observing your data in a page overlay context.

An overlay revels what elements and content are most visible and valuable to your audience. Watch the overlays closely when launching a new site or a redesign, and make changes as you discover your design's shortcomings. It lets you react in real time to align your audience's behaviors on your site with your business and communication objectives.

As we'll see later in this chapter, some traffic analysis tools provide overlays in various forms including heatmaps that spotlight areas receiving the most attention.

RSS Feed Subscriptions

People who visit your site are not your only users. To get a real sense of your site's popularity and success you also need to take into account how many people are subscribing to your RSS feeds and how many items they're reading each day.

Subscribers to your feed are interested in what you have to say, and want to stay abreast of what's happening on your site. They are an exceptionally valuable audience segment that will return to your site regularly.

Geographic Location

It sounds a bit like something from George Orwell's *1984*, but traffic analysis tools can actually tell you the geographic location of your visitors. This data is not always entirely accurate (all AOL users appear to be in Virginia), but it's usually not far off.

If you're running advertising campaigns in different local or global regions, location data is exceptionally useful to determine how much site traffic each campaign is generating. If your organization is participating in an event, you can watch location data to see how many new users from that event are visiting your site because of your personal interactions with them.

Of course, there's also a fun wow factor in seeing people from far-off lands visit your site. It certainly brings into focus the global connectedness of the Web, and the great reach your website can have. If you see a large concentration of visitors from a country that speaks a language other than your own, you might want to consider providing some of your content in their native tongue or some sort of convenient translation tool like the Google Translate widget (**http://www.google.com/translate_tools?hl=en**).

Downloads

Some traffic analysis tools can track the files that are downloaded from your site. Whitepapers, help documentation, your resume, code examples, and applications are just a few examples of the types of downloads you'll want to monitor. It's yet another way to gauge your audience's interests.

In some situations it's handy to be able to watch the number of file downloads you're getting in real time. When a new application is launched it's important to know how many people are actually downloading it. Compare the number of unique visitors to the number of downloads to gauge how well your site encourages users to take the application for a test drive.

When you're hunting for a job, and directing a lot of potential employers to your site, you'll want to keep an eye on how many people are downloading your resume. Compare this with the geographic location data to infer which of the employers you've targeted have reviewed your resume, then shoot them a follow-up email to ask for an interview.

Outclicks

An *outclick* is when a user clicks a link that takes them outside of your website. If your site has a link library or a blog where you often link to other websites, you'll want to watch your outclick stats to determine what type of links your audience finds most useful.

You can also watch outclick stats to see if your users are clicking links to affiliates, leaving to purchase books you've recommended, or otherwise accepting recommendations you've made.

Design Parameters

You can learn a lot about the environment in which your site is being viewed by paying close attention to your stats. Nearly all traffic analysis tools gather data about a user's monitor resolution, browser window size, color bit depth, browser version, and operating system.

From this data you can determine if the width of your layout is appropriate for the majority of your visitors or if it will require annoying horizontal scrolling. You can also determine if any of your users are viewing your site with a browser or a platform that you don't currently support so you can make changes to accommodate these users. These stats can tell you if people are viewing your site on alternate devices such as a game console or mobile device.

All of this data is especially valuable if you're about to embark upon a redesign, as you can discern what viewing situations the new site will need to support to best serve your audience.

Reading Your Data

All of this data is usually presented in traffic analysis systems in small pools that illustrate one particular statistic through time. For instance, it's common to see a block of data showing the number of unique visitors to your site throughout the day, week, month, and year.

When reading your data take this three-step approach to evaluate the findability of your site, and its efficacy at serving your audience's needs:

1. Read isolated data pools of the most important information outlined earlier in this chapter. Look for interesting changes such as traffic spikes, new referrers, increased feed subscriptions, and other information that might clue you in to your findability triumphs and tragedies. When you spot significant changes, try to discern their cause and make changes to your site accordingly.

2. Look for correlations between each discrete data pool. There are a nearly infinite number of ways you can search for connections in your data. You might find correlations between a high bounce rate and the click overlay illustrating that your design is so ineffective that it causes new visitors to leave immediately because they can't find what they seek.

   Be curious, creative, and clever as you search for connections between data pools. You can uncover the story of your site's success if you use your noodle.

3. Use more than one traffic analysis system so you can compare data and validate your assumptions. Data from one system may lead you to a conclusion that is inaccurate. Once you think you've solved the mystery of what's happening on your site, check your other traffic analysis systems to make sure your hypothesis is correct.

Be sure to check traffic data on a regular basis. You'll miss important trends, critical problems, and exciting new developments if you rarely check your stats. When you spot problems you can make immediate adjustments to your site to resolve them. If a popular site is directing traffic your way you can react by adding new content to your site relevant to your new visitors. It's a smart way to convert new traffic into repeat traffic.

Picking Traffic Analysis Tools

A good traffic analysis tool will do the following:

- Provide a breadth of data, including as many of the data points described earlier as possible.

- Present data in quick-view format, so it's easy and convenient to monitor.

- Make it easy to compare different data points, so you can discover what's really happening on your site.

- Present data in lucid tables, charts, and graphs where necessary, to give your data context and meaning.

- Make your data legible and easy to read.

The top goal of a traffic analysis tool is to provide *context* and *clarity*. Data is just meaningless numbers unless sufficient context is provided so you can find some value in it. If the data is not clearly presented, meaning is again unattainable.

There are a lot of really great traffic analysis tools on the market that are very reasonably priced, or even free. Using multiple systems in tandem lets you make further evaluations about the validity of your data and can provide clarity to what's happening on your site.

How Traffic Analysis Tools Work

All of the traffic analysis tools described here use a small snippet of JavaScript embedded in each page in order to gather data. It works like a little, invisible bug recording everything your audience is doing on your site, and returns the data to the server for storage and presentation.

If your site uses a common template to generate each page you'll only need to add the traffic tracking code to this one file in order to track events on each page. Static page sites require that you add the JavaScript code to each page individually. You'll find simple installation instructions and helpful advice on the official site for each of these traffic analysis tools.

Mint

It's no accident that Mint (**http://haveamint.com**) appears first in this list of great traffic analysis tools. Create by Shaun Inman (**http://shauninman.com**), it's simple, presents data in an exceptionally legible manner, can be quickly accessed, and can be extended to track nearly anything you need to know about your site. A Mint installation license runs $30 per domain and is worth every penny.

One of the most compelling features of Mint is its one-page interface that you can quickly consult to keep tabs on the health of your site (see **FIGURE 13.1**). It's a monolithic dashboard with discrete data boxes—called Pepper—each tracking different stats and presenting them in a variety of views.
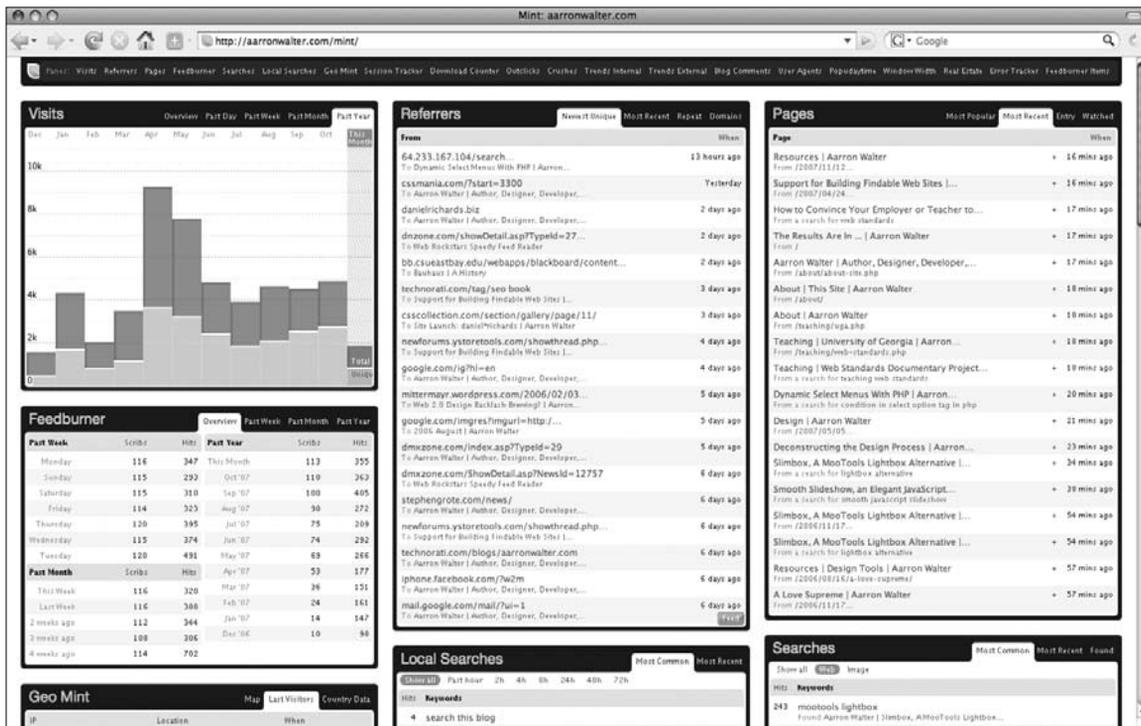
FIGURE 13.1 *Shaun Inman's Mint (**http://haveamint.com**) packs sophisticated traffic data into a simple, dashboard-style interface that makes it easy to stay informed about the events on your site.*

Installation of Mint and all its Pepper is a very simple process, but does require that your server is running PHP with a MySQL database to store all data logged. A detailed list of the requirements for running Mint along with a useful compatibility test suite can be found at **http://haveamint.com/about/ requirements**. Drop the compatibility test suite on your server and run it from your browser to confirm your server will support Mint before purchasing your license.

There is an abundance of free, and useful, Pepper for your downloading pleasure on the official Mint site in the Peppermill (**http://haveamint.com/ peppermill/**). Each Pepper comes with installation instructions, which usually just involves uploading a folder to Mint's "pepper" folder then activating it in the preference panel. If you've ever installed a WordPress plugin, this process will be familiar.

Though there are too many to provide a complete listing here, there are a few Pepper listed in **TABLE 13.1** you're sure to want to include in your Mint installation.

A variety of widgets for various platforms make it easy to get a quick peek at the number of unique visitors on your site for the past hour, day, or all visits logged. You can find widgets for Mac OS X, Windows Vista, and the Yahoo! Widget Engine in the Peppermill (**http://haveamint.com/peppermill/widgets/**). **FIGURE 13.2** shows the Mac OS X Dashboard widget in action.

TABLE 13.1 **Essential Pepper for Mint**

Pepper	Developer	Feature
Local Searches	Shaun Inman	Logs all local search queries on your site
FeedBurner	Ronald Heft	Displays RSS feed subscription stats from FeedBurner
GeoMint	Christopher Lupprich	Collects the locations of your visitors and draws it on a Google Map
OutClicks	Andrew Sutherland	Tracks outgoing clicks from your site
Session Tracker	Beau Collins	Track your visitors as they navigate your site
Trends	Brett DeWoody	Identifies trends leading people to your site, and navigation trends within your site
Blog Comments	Ronald Heft	Shows the most recent comments on your blog
Secret Crush	Shaun Inman	Logs IP, host, and other info about visitors; has an IP search utility that helps track leads from inquiries
Error Tracker	Jeff Miller	Tracks the source of every 404 error on your site so you can fix broken links
Download Counter	Steve Smith	Tracks all files downloaded from your site
Doorbell	Shaun Inman	Notifies you in real time when someone arrives at your site or clicks an outbound link
iPhone	Shaun Inman	Enables single-column mode in Mint when browsing from an iPhone

If you freelance or work for an agency serving many clients, consider installing
Mint once each project is completed so you *and* your client can keep tabs on
what's happening on their site. Keeping your client educated about how their
site is serving their customers empowers them to run a more effective busi-
ness, and can even generate repeat business for you as areas that need to be
improved are discovered.

> **TIP**   You'll find alternate Mint themes, WordPress plugins to integrate
> your data into your blog, and more at (**http://haveamint.com/**
> **peppermill/other_plugins/**).

Google Analytics

Google Analytics (**http://www.google.com/analytics/**) is perhaps the best-
known traffic analysis tool on the market. It's powerful, it's reasonably easy
to read, it provides great data and, like most of Google's other indispensable
applications and services, it's absolutely free.

Mint is a great quick-check tool perfect for daily updates on the health of your
site, but Google Analytics is the tool you'll want to use when you need to dig
deeper into your data, and view it in various contexts.

When you sign up for Google Analytics, they'll walk you through the process
of setting it up on your site. Unlike Mint, Google Analytics isn't hosted on your
server. It's hosted on Google's server and you'll simply add a small JavaScript
snippet to the bottom of each page on your site to send it your traffic data.

Google Analytics
video tutorials
on YouTube http://
www.youtube.com/
view_play_list?p=
7A545E796C2CFA72

Customizable Dashboard

When you log into Google Analytics a dashboard sums up the key events hap-
pening on your site. The number of unique visits is graphed at the top of the
page to illustrate trends. You can adjust the date range to get a broader view
of your traffic, making it easy to spot the high and low traffic times throughout
the year and which way your traffic is trending, as shown in **FIGURE 13.3**.

You can customize your Google Analytics dashboard to include just the data
that's most valuable to you. You'll see an "Add to dashboard" button at the top
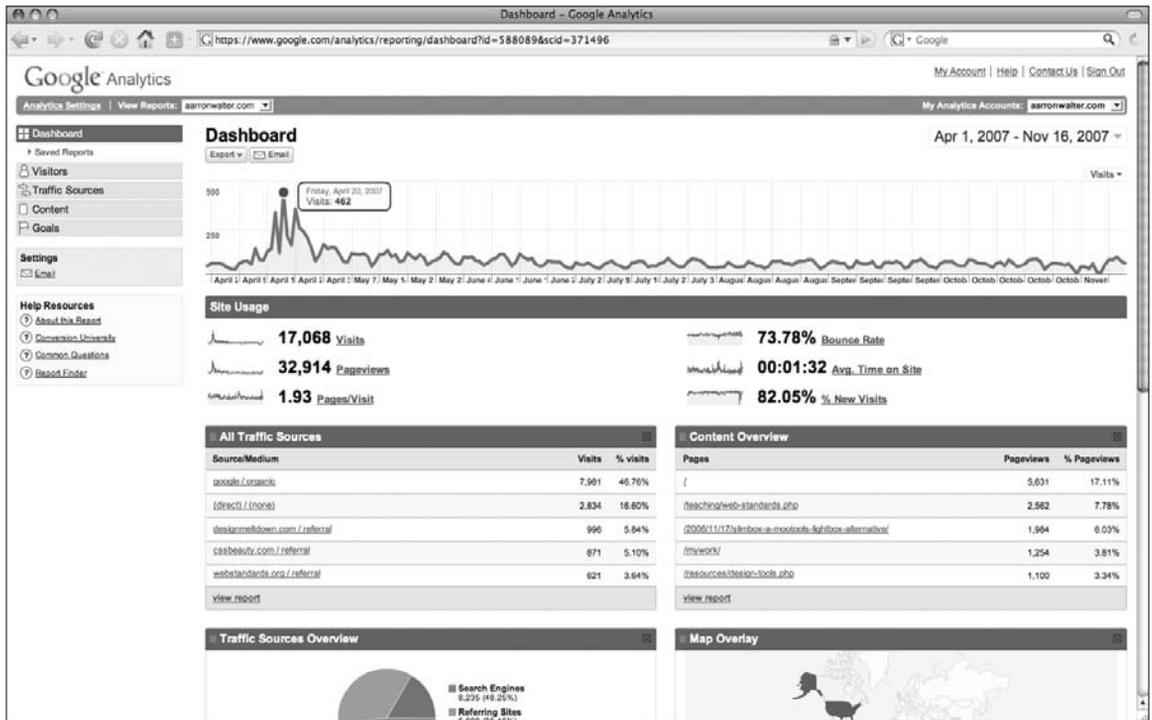
FIGURE 13.3 *Google Analytics (**http://www.google.com/analytics/**) lets you customize your dashboard to get a quick overview of your site stats. You can also dig down into the data, adjusting the date range to spot traffic trends.*

of the page as you browse through each section of your data (see **FIGURE 13.4**). Each time you click the button, a new data box will be added to your dashboard, which can be placed wherever you like just by dragging and dropping.

Adjacent to the "Add to dashboard" button in each data page are buttons to email or export the data. Both are especially useful when gathering data to share with a client. The data can be exported in a variety of file types including PDF, XML, CSV, and TSV.

FIGURE 13.4 *At the top of each interior page in Google Analytics you'll find a button to add the current data to your dashboard.*

Track AdWords Campaigns

If you are running advertising campaigns using Google's AdWords (**http://adwords.google.com**) you can track the status and conversion rate of the ads from within Google Analytics. In case you're unfamiliar with AdWords, it's an advertising platform that helps you create simple keyword-targeted text ads, and displays them adjacent to Google search results and on other affiliate sites. You define a monthly budget for your ad campaign, and pay only when users click on your ads.

Google Analytics tracks the keywords and phrases that are triggering your ads to be displayed, and lets you know how often they are clicked. It even suggests other keywords to consider targeting in order to improve your click rate.

When you sign up for an AdWords account you are given a bit of JavaScript you can drop into your site on important pages in order to track conversions. A conversion is when a visitor completes a desired task, like making a purchase or signing up for the mailing list. When a user clicks your ad and then navigates to a page with conversion tracking code, Google Analytics will tally the conversion (see **FIGURE 13.5**).

FIGURE 13.5 *Google Analytics can be used to track ecommerce sales generated by AdWords ads. It also tracks site goals you define to determine if people clicking your ads are completing desired tasks.*

Learn more about AdWords and tracking conversions at http://www.google.com/analytics/conversionuniversity.html

Google Analytics even shows you your rate of return on your advertising investment when you assign a monetary value to each conversion task. It's a great way to see if the marketing budget is being well spent, which is information your clients will find valuable.

Data Visualization Options

You can view your data in Google Analytics in a variety of ways, which makes it easier to grasp its meaning (see **FIGURE 13.6**). As you browse each section, you'll notice the "Views" options at the top of each data table. You can toggle between four different data visualization options including a simple table view, pie chart view, bar chart view, and comparison view. The comparison view is especially interesting, as it shows how each page, keyword, or other data point is doing compared to the site average.

Keyword Tracking

It should come as no surprise that Google Analytics does a great job of identifying the keywords that are generating the most search traffic to your site. It also helps you understand how effective these keywords are by providing information about the average number of pages viewed, bounce rate, and the average time on your site when referred by these keyword searches, as shown **FIGURE 13.7**.
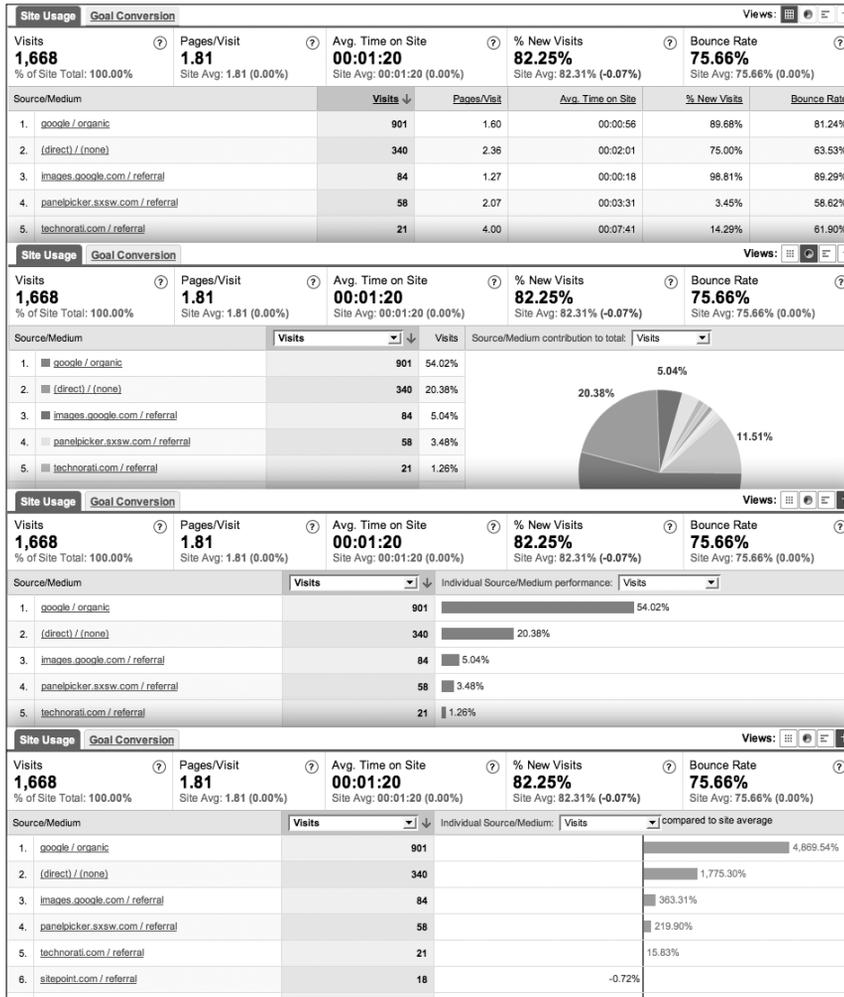
FIGURE 13.6 *Google Analytics lets you view each section of your data in four different ways, each providing a unique perspective.*

good keyword = long stay on site + low bounce rate

	Keyword	Visits ↓	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
8.	teaching web standards	62	3.45	00:09:01	3.23%	38.71%
9.	reset stylesheet	46	1.13	00:00:16	80.43%	93.48%

bad keyword = short stay on site + high bounce rate

FIGURE 13.7 *These two key phrases have dramatically different bounce rates. The phrase "teaching Web standards" has a relatively low bounce rate, and tends to keep visitors on the site for an average of nine minutes. The phrase "reset stylesheet" has attracted 46 visitors, but they leave immediately—staying for an average of 16 seconds.*

Pay special attention to the bounce rate. A high bounce rate for a particular keyword or phrase indicates that it's not a good one to target, or perhaps your site doesn't provide enough content relevant to the topic.

Not all search traffic to your site is equal. Often a large portion is the equivalent of dialing a wrong number on a telephone. It's not uncommon for users to search for keywords and accidentally stumble upon sites that don't really provide the information they're searching for.

You'll find many keywords in your stats that are generating traffic for you, but aren't really relevant to your site's goals. Don't worry if you see a lot of keywords with very high bounce rates. Focus your attention on the keywords and phrases that are most relevant to the goals of your site and try to keep their bounce rate low by adjusting content, design, and organization of your pages.

If you keep a close eye on your keyword tracking data you can better understand what it takes to attract your best audience and how to keep them around. When you spot keywords and phrases with low bounce rates and high averages of time spent on your site—these are indicators of success—produce more content on the subject. More than any SEO trick, this will help you attract and build a relationship with your target audience.

Site Overlay

Google Analytics can display select traffic data on top of each page of your site so you can see which links your audience is clicking (see **FIGURE 13.8**). This is exceptionally useful for designers, information architects, and usability specialists as it allows them to evaluate the success of their work. If certain links aren't getting the clicks they'd hoped for, adjustments to the design, position, or labeling can be made and observed to see if the negative trend can be reversed.

Crazyegg

For even more sophisticated data overlays, supplement your traffic analysis tools with Crazyegg (**http://crazyegg.com**). There are four different types of data overlays you can view with Crazyegg, each impeccably designed to make your statistics easy to read.

Data Overlay

Crazyeggs' data overlay is conceptually similar to the one you'll find in Google Analytics, but shows more information including traffic referrals and what percent of the total page clicks each link is receiving. Overlay data is also presented more legibly in Crazyegg than in Google Analytics.

Unlike Google Analytics, Crazyegg tracks JavaScript interface events in addition to hypertext clicks, which is exceptionally valuable when evaluating the success of a contemporary Web application.

As you'll see in **FIGURE 13.9**, Crazyegg places a little button next to each link, which you can click to reveal detailed data about its click frequency and referring sites that generated clicks. The color of the overlay button next to each link indicates its popularity.
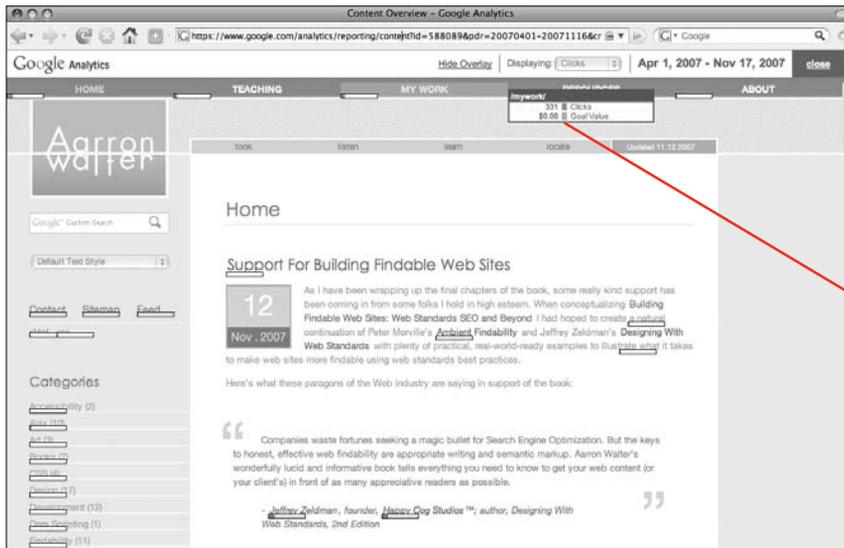
FIGURE 13.8 *The site overlay feature shows you data about the popularity of each link presented on top of each page in your site. It lets you explore your data as you click through your site.*

As you mouse over each link in the data overlay, information is revealed about how often it's been clicked, and revenue generated by goals you defined
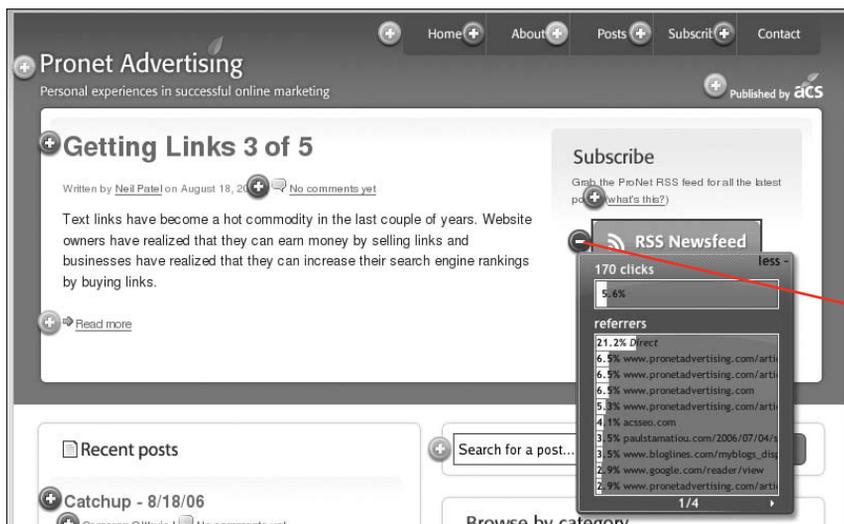

FIGURE 13.9 *Crazyegg's data overlay presents useful data about where users are clicking on your pages. It tracks JavaScript events, and even tells you where the users who are clicking are coming from.*

As you mouse over each link in the data overlay, information is revealed about how often it's been clicked, and revenue generated by goals you defined

Heatmap

The heatmap view focuses just on where your users are clicking in your pages. Areas with hot colors indicate a great deal of click activity. Because the data is translated into a transparent overlay it's a more convenient way to evaluate the success of your design. See **FIGURE 13.10**.

FIGURE 13.10 *The heatmap view presents a transparent overlay of color indicating the areas in your page where users are clicking the most. In this grayscale illustration, popular click areas are shown with a hazy white overlay. It's a great way to evaluate the degree to which your design is meeting your business objectives.*
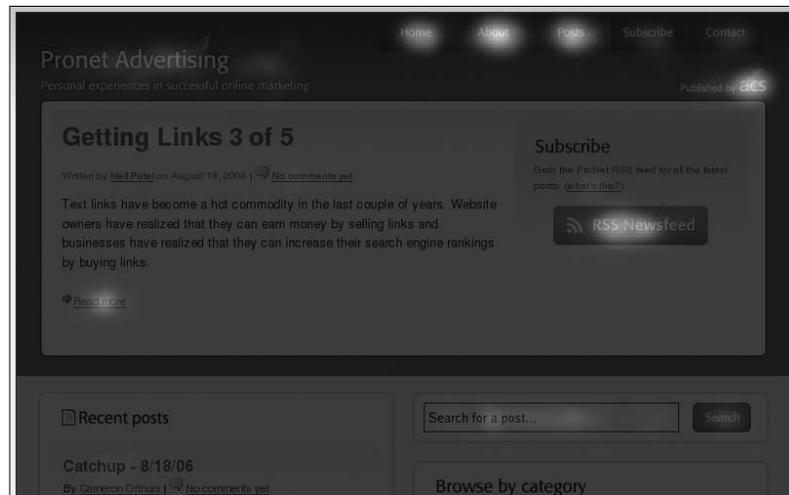
List

You can also view click data in a simple list form. It provides easy-to-read information about each element clicked, indicating the element type (anchor, input, image, etc.), the number of times it was clicked, and the percent of the total page clicks it's received. List view is ideal for quickly determining which links on the page are getting the most clicks.

You can export your data as a CSV file so you can view and sort it in Microsoft Excel or other spreadsheet applications. See **FIGURE 13.11**.

Confetti

The confetti view presents each click within the context of a referral. Not only does it display where users are clicking, it also color-codes each click to show what people are clicking on when referred by a certain website. This provides valuable insight into the interests of the various segments of your audience. See **FIGURE 13.12**.

Confetti view provides very detailed information about each click point including what browser the visitor was using, the size of the browser window, the operating system, and how long the visitor hesitated before clicking the link.

IDENTIFIED	UNIDENTIFIED	BOTH		Export Lists as CSV
ELEMENT		**TYPE**	**CLICKS**	**PERCENT**
Pronet Advertising is a proud member of 9rules Network		IMG	176	5.8%
RSS Newsfeed		A	170	5.6%
About		A	156	5.2%
Published by ACS		IMG	137	4.5%
Articles		A	133	4.4%
ProNet Advertising		A	133	4.4%
Home		A	91	3.0%
Search for a post...		INPUT	90	3.0%
ACS		A	81	2.7%
Search Engine Optimization		A	77	2.5%
Buzz Marketing		A	74	2.5%
More articles...		A	61	2.0%
Online Marketing		A	49	1.6%
Read more		A	49	1.6%
Web Analytics		A	47	1.6%
Design		A	46	1.5%
Blogging		A	43	1.4%
Pay Per Click		A	33	1.1%
Humor		A	32	1.1%
Subscribe		A	26	0.9%
Web Applications		A	25	0.8%

FIGURE 13.11 *List view presents all page-click data in a table format, providing a quick way to view the most popular links on the page.*

Top 15 Referrers

Name	Amount
pronetadvertising.com	944
Direct	316
styleboost.com	214
alexa.com	151
acsseo.com	35
blog.guykawasaki.com	33
cssreboot.com	12
bloglines.com	14
mashable.com	23
9rules.com	14
paulstamatiou.com	15
netvibes.com	8
webcreme.com	8
google.com	16
Other	125
Total	1938

Instructions

Each colored dot represents a click. You can change which data is displayed by selecting a new item from the drop-down at the top of the panel to the left. You can also hover/click each dot to see the full details for that click.

Click anywhere to close this window.

FIGURE 13.12 *Confetti view color-codes each click point to indicate from which site the user was referred. Although presented here in grayscale, the confetti view color-coding distinctions can still be discerned. Pay close attention to clicks made by visitors referred by search engines. You can discover how different keyword searches affect the way users navigate your website.*

Using confetti view you can discover how visitors referred from search engines with various keywords navigate your site differently than those referred by other websites.

Crazyegg Pricing

Crazyegg offers a free version of their service that will track a total of 5,000 visits per month on a total of four pages. Their basic subscription plan is $9 per month, and can track 10,000 visits per month on 10 pages. Standard, plus, and pro subscription plans range from $19 to $99 per month, each offering more tracking capacity as price escalates. All of the paid plans provide more advanced features than the free version such as live report updates and report sharing. You'll find the most current information on their pricing and subscription plans at **https://crazyegg.com/pay/plans**.

ClickTale

ClickTale (**http://www.clicktale.com/**) provides traffic data unlike most other tools on the market. It records each user's session on your pages, then plays it back as a movie–revealing the real user experience on your website (see **FIGURE 13.13**). It's the next best thing to observing users in a usability lab. To some degree it's even better, because it allows you to observe users who are at home in a real-life browsing scenario where they aren't influenced by a usability testing environment.

FIGURE 13.13 *ClickTale's session recording lets you watch your users on your website in real time. You can adjust the playback speed of each user session movie to get a quick overview of where users are hesitating, and what's causing usability problems.*

Press the play button to watch a user's activity on your site. A small box moves across the screen to show the user's mouse path

Like Crazyegg, ClickTale is a valuable supplement to core traffic analysis tools such as Mint and Google Analytics. You'll find ClickTale especially useful when you launch new sites or redesigns and need to identify points of confusion or hesitation that indicate a findability or usability problem.

ClickTale also provides heatmaps—an example of which is shown in **FIGURE 13.14**—showing where users are clicking, and basic demographic information like the user's location, browser, and platform. It's all useful data, but probably not why you'll want to sign up for their service. It's the session recording that's of greatest value.
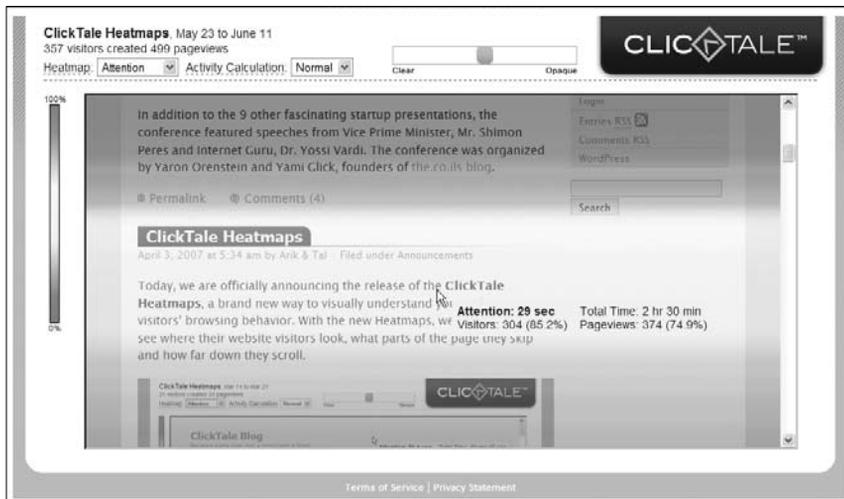
FIGURE 13.14 *Like Crazyegg, ClickTale provides heatmap views of your pages so you can discern where in your pages your users are directing a majority of their attention.*

Screenshots and written descriptions don't do ClickTale justice. To get a real sense for how amazing user session playback is, check out a screencast of ClickTale in action on YouTube at **http://youtube.com/watch?v=_DFYVkdk8lo**.

Be aware that recording every user session can potentially slow your site's performance a bit, especially if many simultaneous users are hitting your site. You might want to use some server-side scripting to insert ClickTale's data logging JavaScript in your pages at certain intervals to avoid taxing your server. A cross section of session recordings will often suffice just as well as recording every one.

ClickTale Pricing

ClickTale's pricing follows a subscription model similar to Crazyegg's. A free version allows you to record 100 sessions per week on up to two subdomains. The paid subscriptions range from the personal package for $19 per month and the professional package that is $99 per month. You can record 100 sessions daily with a personal subscription package and 1,000 per day with the pro version. You can find ClickTale's latest pricing information at **http://www.clicktale.com/pricing.htm**l.
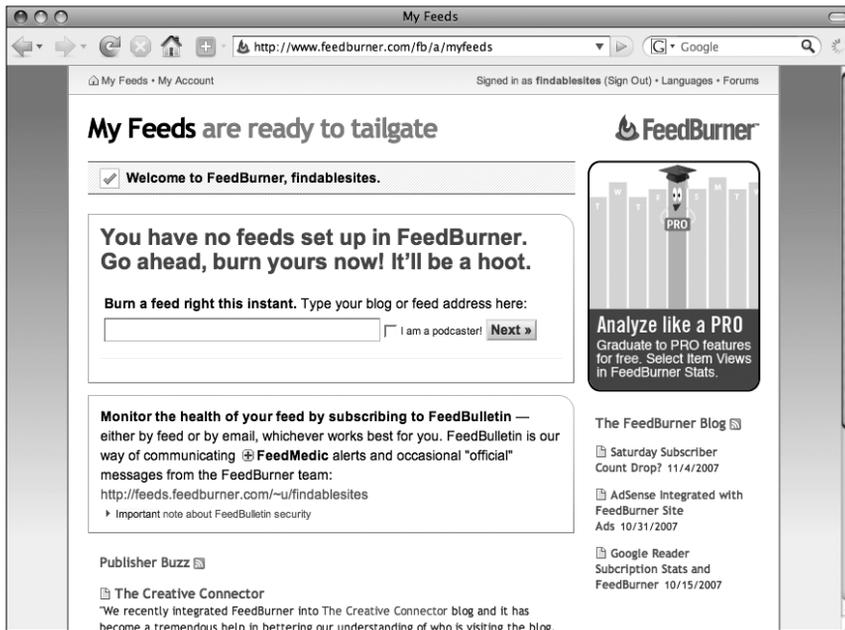
FeedBurner

As Chapter 5 pointed out in the section entitled "Using FeedBurner as an Update Service," FeedBurner (**http://feedburner.com**) is an RSS publishing and tracking service that transforms feeds into new content formats and provides feed enhancements like quick subscribe buttons, podcast support, and advertising that can generate revenue for your site. Now that Google owns FeedBurner, all of its services including the pro features are absolutely free.

There are plenty of good reasons to use FeedBurner, the most significant of which is the feed subscriptions statistics it offers. Tracking visitors to your site is important, but this is just one segment of your audience. A large number of users check in on their favorite sites daily via an RSS feed aggregator rather than visiting each site directly. Most traffic analysis systems overlook this audience segment, but you can factor it in by routing all your RSS feeds through FeedBurner. All your subscription stats can then be conveniently integrated into Mint using the FeedBurner Pepper.

Once you've set up a free FeedBurner account at **http://feedburner.com**, you'll be asked for your current RSS feed URL generated by your blog or content management system (see **FIGURE 13.15**). Paste it into FeedBurner and it will transform your feed into a variety of formats that will make it easier for your audience to view or subscribe to it.

FeedBurner can make your feed more podcast friendly so you can distribute MP3s, PDFs, images, or other files to your subscribers via your feed. It can also add links to social networking systems after each post, or include Google AdSense advertising in your feed that can generate revenue for your site. There are a boatload of services you can add to your feed, all of which are optional and can be disabled or enabled at any time.

In step two of the setup process you can define what sort of statistics you'd like FeedBurner to gather about your feed. You'll be able to get information about all of the following:

- How many people have subscribed to your feed

- What feed readers people are using

- Other sites and services that might be using your feeds

- How often people click items in your feed to visit your site

- Downloads of files enclosed in your feed, such as podcasts or PDFs

- Views of individual items in your feed (**Pro feature**)

- The number of people who have clicked or viewed items in your feed **(Pro feature)**

Pro features used to require a paid subscription, but are now free after Google acquired FeedBurner in 2007 (**http://www.feedburner.com/google**). Since it's all free information you might as well check all options shown in **FIGURE 13.16**!
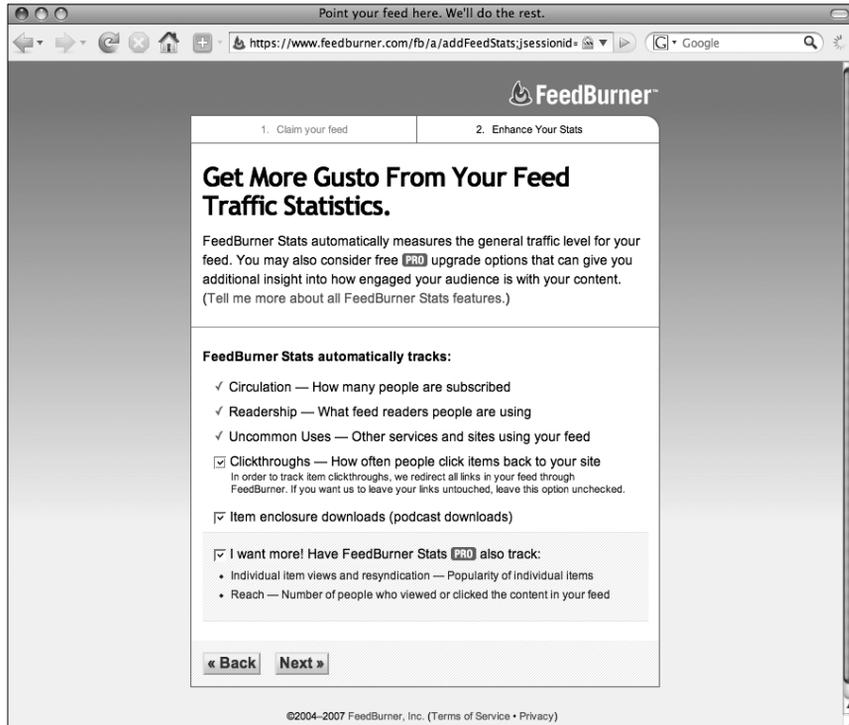
To complete the setup process you'll just need to replace your RSS feed link on your site with the one FeedBurner provides you. Helpful documentation and plugins are provided at the end of the setup process that will assist you if you're integrating your new feed into a popular blogging platform.

You could also use a 302 redirect to point your existing feed to FeedBurner. Chapter 3 introduced 301 redirects—notification of a file's permanent location change. A 302 redirect is similar, but it indicates a *temporary* location change. You can add a couple simple lines of code to your `.htaccess` file to point your blog's current feed to FeedBurner—see Chapter 3 for information on `.htaccess`.

Using a temporary redirect lets your users subscribe to your default feed URL but get FeedBurner's traceable feed content. If you ever decide you'd like to stop using FeedBurner, simply delete the redirect in your `.htaccess` file, and you won't lose any subscribers. The feed URL will remain the same for your users.

Here's an example of how to create a 302 redirect to your FeedBurner feed:

```
RewriteEngine on
RewriteRule ^feed\.xml$ http://feeds.feedburner.com/AarronWalter
[R=302,L]
```

If you are already doing other URL rewrites in your .htaccess file you won't need to include line one, which simply turns the rewrite engine on. The two highlighted portions of line two indicate the areas you'll need to customize to match your default feed file name, and your FeedBurner username.

After a few days in the wild, your feed will start to send data back to your FeedBurner account, where you can begin viewing your stats (see **FIGURE 13.17**). Keeping up with your site's stats in FeedBurner and all of your other traffic analysis tools on a daily basis can become tedious, so you might find it more convenient to aggregate the data FeedBurner gathers into Mint. Fortunately there's a Pepper that makes it possible. You can download the FeedBurner Pepper for free at **http://haveamint.com/peppermill/pepper/48/feedburner/**. Installation instructions are included with the download.
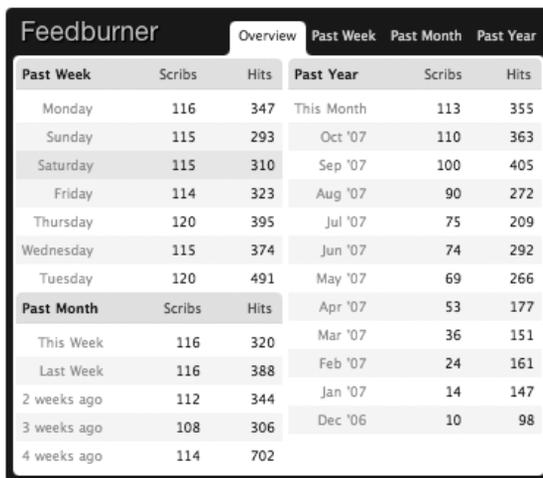
Feedburner			Overview	Past Week	Past Month	Past Year
Past Week	Scribs	Hits	**Past Year**		Scribs	Hits
Monday	116	347	This Month		113	355
Sunday	115	293	Oct '07		110	363
Saturday	115	310	Sep '07		100	405
Friday	114	323	Aug '07		90	272
Thursday	120	395	Jul '07		75	209
Wednesday	115	374	Jun '07		74	292
Tuesday	120	491	May '07		69	266
Past Month	Scribs	Hits	Apr '07		53	177
This Week	116	320	Mar '07		36	151
Last Week	116	388	Feb '07		24	161
2 weeks ago	112	344	Jan '07		14	147
3 weeks ago	108	306	Dec '06		10	98
4 weeks ago	114	702				

FIGURE 13.17 *The Feed-Burner Pepper displays your current subscriber count, and the number of items in your feed that have been viewed for each day, week, month, and year.*

Before configuring the Pepper to grab your feed stats you'll need to first locate your feed ID. You'll find it at the end of your feed URL as illustrated in this example:

```
http://feeds.feedburner.com/AarronWalter
```

Monitoring Buzz

Traffic analysis tools aren't the only way to stay abreast of the buzz on and around your site. Google (**http://www.google.com/alerts/**) and Yahoo! (**http://alerts.yahoo.com/**) both offer alert services that will drop you an email when terms you specify appear in their index. Add alerts for your company name and URL to be instantly notified when other sites are talking about you. Are your ears ringing?

Technorati's (**http://technorati.com**) watch list lets you define terms you'd like to track in the blogosphere. Subscribe to your watch list RSS feed to keep tabs on any new blog posts that mention your site.

You'll find plenty more tools and suggestions for monitoring the buzz surrounding your site at Smashing Magazine (**http://www. smashingmagazine.com/2006/11/24/ buzz-monitoring-observing-und-tracking/**).

The bonus material on the companion website at http://buildingfindablesites.com includes an example illustrating how to track leads from your site by connecting a user's session shown in Mint with inquiries from your contact form. A detailed explanation and a contact form code example are included.

Plug your feed ID into the FeedBurner preferences pane in Mint and you're all set (see **FIGURE 13.18**). If you have more than one feed you'd like to keep tabs on, just separate your feed IDs with commas.

FIGURE 13.18 *Enter your feed ID into the preferences pane for the FeedBurner Pepper and you're all set to watch your subscription stats from the comfort of your Mint dashboard.*
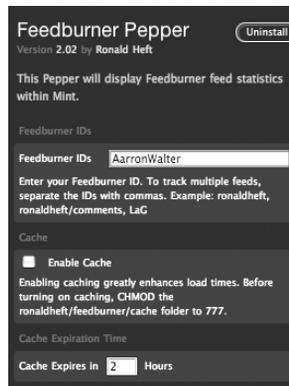
NOTE You can also track how many subscribers are reading your feed via Google Reader using Google's Webmaster Central. See the section entitled "Subscriber Stats" in bonus Chapter 10 for more details.