



Maximize your marketing efforts

with Google Analytics



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About the whitepaper

This whitepaper is based on a webcast delivered by Caleb Whitmore, Founder of Analytics Pros, in August 2011. The objective of the webinar, co-sponsored by the American Marketing Association and Tableau Software, was to provide detailed recommendations about how to use Google Analytics (GA) to propel your marketing efforts.

In this paper you'll find all the highlights from the webinar. You'll gain detailed insight about how to be successful using GA as well as specifics on how to use GA in your day-to-day operations to reap the benefits offered.

Beyond the reports

“Half the money I spend on advertising is wasted; the trouble is I don't know which half” – John Wanamaker

These words capture one of the oldest frustrations in the marketing profession. Fortunately, the game has changed. Today's marketers can know exactly what's happening, exactly where their revenue is coming from, what's working and what's not. This is the heart of web analytics.

GA, CoreMetrics, Omniture, Unica, Urchin, WebTrends, and other web analytics tools deliver virtually infinite data. You can run all kinds of reports and understand everything on the web that touches your business. The problem is that many businesses don't go beyond the reports. They aren't asking the questions that matter to make their businesses stronger for the future. They're simply gazing in a rearview mirror.

Here's a standard graph from GA that shows visits and transactions on a website. We can see that transactions and visits seemed to go up and down together over time. So if we get more traffic, it's likely that we're going to get more sales. But where are those sales coming from? What's driving that revenue?

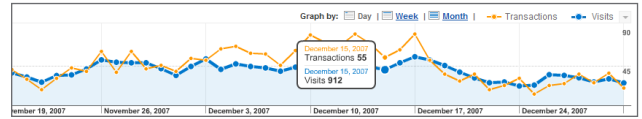


Figure 1.

Standard GA graph of visits and transactions on a website.

Web analytics tools, especially GA, give us the ability to go beneath the surface to see what's driving those sales. Rather than just a graph that shows a correlation, we can see very precisely that CPC and organic are driving way more sales than referral or direct traffic.

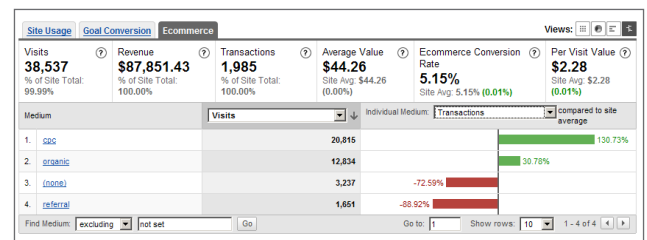


Figure 2.

GA Analysis Showing Key Drivers of Sales Transactions on a Website.

We can also export the data and use other analytical tools to combine web analytics with other kinds of data that really let us see trends across our businesses.

So, why doesn't every organization dig into web analytics and apply it at a high level? One of the biggest reasons is that web analytics relies heavily on technology. This creates a situation where technology can get in the way of the business. Organizations focus narrowly on using tools to gather data, rather than approaching web analytics strategically, through the lens of their business priorities.

Business-oriented analytics

Web analytics has often been reduced to “hits” and pageviews, but it offers much deeper potential for customer insight and marketing optimization. When it's focused on supporting business goals, web analytics can connect the dots between what's happening online and the bottom-line for your organization.

Unfortunately, the web analytics industry has tended to prioritize data and information over people. Analytics technologies are only tools. All they can do is collect raw data and give us reports. It's people that drive the rest of the equation, delivering the knowledge to understand the reports, the wisdom to apply knowledge to experience and context, and the ability to take action on what is learned. Business value comes from action. If you don't understand what the reports are saying and take action to apply them to your organization, you won't see any value from your investments of time, resources and money in web analytics.

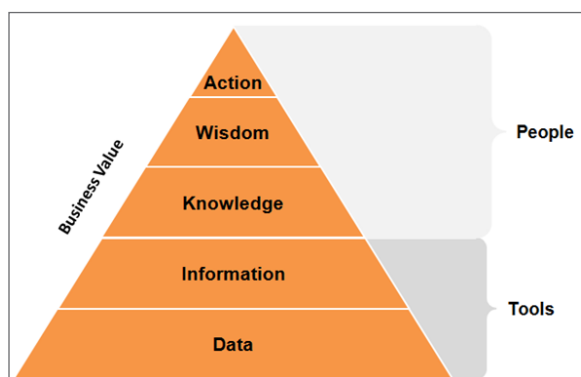


Figure 3.

Web analytics value pyramid.

The cost center in typical web analytics focuses around the technology, and that deprives budget from the people. We can spend significant amounts of money on the latest and greatest technology, but we won't make it to the top of the pyramid if we fail to invest in people. As Eric Peterson, founder of Web Analytics Demystified, has said, "There may be free tools, but there are no free people."

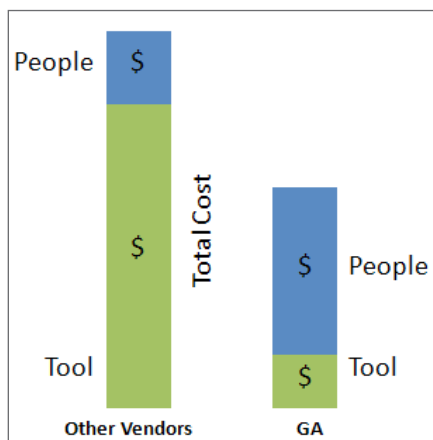


Figure 4.

The Google Analytics Opportunity.

This is what's so great about GA. The low cost of the tool turns the equation upside down. It's not entirely free because there is a real cost for the expertise required to set it up properly, but it changes the cost equation dramatically. It allows you to put more resources into people and get much more for your money by developing a genuinely business-oriented approach to web analytics.

Keys to success with Google Analytics

We can break down success with GA into four key areas:

1. Planning appropriately;
2. Ensuring a solid implementation;
3. Getting adequate training; and,
4. Acquiring tools to take your analysis to the next level.

Goal-focused planning

The key to planning is to start with business goals, not metrics. At the same time, you want to be constantly inquisitive, not presumptuous. Many businesses do not take the time to consider what they want to get out of web analytics, the larger goals behind the metrics they think they need. They just jump right into implementation, throw some tags on the site, and start looking at reports.

Here's an example of how this can backfire. A performing arts organization in the UK came to me asking for pageviews on a particular page. When I asked them why they wanted to know, they explained that they had several promoters and they wanted to know which promoter was better. I responded that pageviews would give them some information about what was going on with the promoter, but wouldn't it be better if they could know the number of tickets sold thanks to that promoter's efforts across all media channels that relate to the website? And what if they could compare the traffic and sales generated by that promoter to that of other promoters? Then they'd be

“ Half the money I spend on
advertising is wasted; ”
“ the trouble is I don't know which half. ”

– John Wanamaker

able to know much more accurately and clearly which promoter was better. Of course they wanted that, but unfortunately they hadn't set up GA to be able to report this more meaningful information. We couldn't report it because they hadn't planned for it.



Figure 5.
Recommended planning process.

A successful plan starts with business goals and maps the web analytics implementation to serve those goals. Your business goals should be high-level business objectives. You want to get beyond “we want to build website traffic” to goals that really get at why your business exists and how you want to improve it. Start by documenting these and then brainstorm the questions you need to be asking to know how you’re progressing towards these goals. From there, you can start thinking about metrics and data.

| | |
|--------------------------------|---|
| <i>Business Goal</i> | Sell more tickets |
| <i>Question</i> | Which promoter is better at selling tickets? |
| <i>Data to Answer Question</i> | How much traffic are we getting? How much traffic is coming from a particular promoter’s efforts? What’s the engagement from that traffic? What are the sales rate, the number of sales, and the total in dollars from that promoter’s traffic? |

Figure 6.
Business goal planning example.

Once you have all that mapped out, you can start to define the implementation. Now we’re talking about tactics: how to get this data flowing in the reporting configuration and accessible. And finally we can look at analyzing the data and getting answers.

This is a process that needs to be repeated. It’s not something you do just once. It’s an opportunity to invest the time up front and talk through all your business goals and questions, so your web analytics can really make a difference for your business.

Informed implementation

One of the great things about GA is that anybody can sign up, get the basic tag, throw it on their website, and start seeing data. But this is also one of the worst things. There are over 55 settings for the GA implementation tag, and that “plain vanilla” out-of-the-box tag is probably not going to be right for your site. To use those settings to your advantage, you need to think about them in your context, which includes your technology, the architecture of your website, and what data you need to be collecting.

A lot of GA projects go sideways because of implementation problems. One of the most common problems arises with the Cookie Domain setting. If your business has subdomains or third party domains, this can affect you adversely. A quick way to check if your implementation has problems is to go to your Referring Sources in GA and see if your own website is listed as one of the referring sources. If it is, that’s a sign that the GA tracking tag is not implemented properly. You need to take a closer look at your implementation settings and maybe get some expert assistance.

Adequate training

There are a lot of great resources for educating yourself and your team about GA. I recommend starting with a book or two. If you’re not a reader, Google offers the Google Analytics Conversion University, which covers the tool top to bottom in about six hours of video that you can view on demand at no cost.

Recommended books

- Performance Marketing with Google Analytics (Whitmore, Tonkin, Cutroni)
- Advanced Web Metrics (Clifton)
- Google Analytics (Cutroni)
- Web Analytics 2.0 (Kaushik)

Training opportunities

- [Google Analytics Conversion University](#)
- [Google Seminars for Success](#)
- [GAUGE Google Analytics User Conference](#)

There are also over 180 GA Certified Partners globally, and most of these companies have excellent blogs and give away a tremendous amount of knowledge and resources. You can find these on the [partners page](#) of the GA website, as well as additional resources in the [education section](#) of the site.

Supplemental tools

GA has an apps marketplace with dozens of apps built on the API to help you get more out of your data. There are also independent software providers offering some pretty amazing tools, like Tableau Software, which lets you mash up GA data with sales databases, product cost spreadsheets, and other sources, so you can visualize all your data together. Here are some areas where supplemental tools can be extremely valuable:

- Auditing data quality. Data integrity is critical to everything else in GA. Without reliable data it's very difficult to make good decisions. I mentioned that simple check to make sure a problem with your Cookie Domains setting isn't creating internal referrals. There can also be problems with suspicious "direct" landing pages deep within your site or odd exit pages with high rates. A few useful tools for checking data quality include [Analytics HealthCheck](#), [Analytics Checkup](#), and [Observe Point](#).

- Exploring data dimensions. There are dozens of additional data dimensions in GA that you can access for additional insight. I built a tool called the [Dimensionator](#), and a company called ROI Revolution offers the [GARE Firefox Add-On](#).
- Getting at more data. There are many great tools in the [GA Apps Marketplace](#) that will help you take more data out of GA and get more mileage from that data. Some of my top picks include Mashable Metrics, which integrates with Tableau and [NextAnalytics](#) for Excel. [Excellent Analytics](#) is another good tool for Excel, and [GeckoBoard](#) brings data in from GA and other APIs to build scorecard-type dashboards.
- Creating data mashups and dashboards. GA has a lot of great charts, but at some point you'll need to create your own dashboards. You'll probably want to include web analytics with other sales and marketing metrics and share those dashboards with colleagues. Tools like Tableau let you create dashboards without any programming and share them securely.

Marketer essentials: what you should be doing with Google Analytics

The following is an overview of the key GA features that can help any marketer maximize effectiveness.

Goals and goal frameworks

Goals in GA are one of the most important features because so many of the metrics revolve around conversion rate, scores for visits, and other goal-centric metrics. Goals are a pre-calculated metric, so you have to plan for them in advance. If you create a goal today, it will start working from today forward, but it will not apply to past data.

The concept of a goal is that something is supposed to happen on your website, and you want to track whether it's actually happening or not. You can get started really easily by just creating a single goal for one thing.

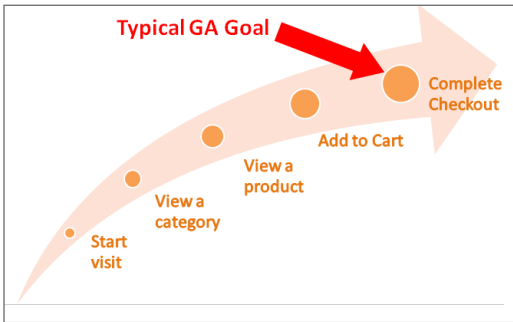


Figure 7.
Goal process example.

Here's an example of a process on a website that is commerce-oriented. A typical goal might be set for the final step in that process: completing checkout. That will start to give you metrics like conversion rates against people who purchase. You can compare against your marketing sources and see which marketing sources are driving that conversion. However, there is a much better way to do goals than just a single point of conversion. I call it a goal framework.

Within GA, goals can be a single page or any set of pages. Goals can also be based on the total time spent on the website by a visit, the total number of pages viewed, or even interaction events. A goal framework provides a way to measure not only the “money goal” or conversion point, but also the interaction points that have happened before that, which indicate a visitor who is more engaged and more valuable to you.



Figure 8.
Simple goal framework example.

In this GA screenshot, you can see a framework set up with several goals. The four metrics indicated by red arrows show the per visit goal value and the three key goals: viewing a key piece of content, viewing the form where you could start to request a booking, and completing that form. So rather than just one goal, which would traditionally be completing the form, we have three. This gives us insight into what the conversion rate is against those other areas, as well as, in the data table below, how different types of traffic convert against each of those three goals. You can see, for example, quite a disparity between the 4.16% of organic traffic that completes the form and the 2.26% of direct traffic.

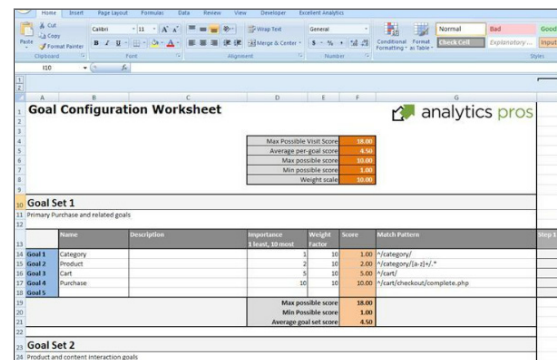


Figure 9.
Goal planning worksheet.

Setting up a goal framework can be tedious, so I made an Excel worksheet that serves as a planning tool. You can use it to map out what you want to define for your goals and the scores you want to give them. The scoring aspect is quite valuable and often overlooked. The scoring engine in GA assigns a score to each session depending on the number of goals they complete. The per visit goal value can help to differentiate people that perhaps don't complete the purchase, but do view a category and a product and add an item to the cart. It's safe to say that a session like that is more important than one where the user bounces right away. The scoring mechanism slices between the goals and recognizes that the goals aren't equally important. Viewing key content, for example, is not as important as filling out the form, so we're going to give that a different score.

For more on this topic, I recommend this blog post by Avinash Kaushik at Google, which offers some valuable insight on goals and the value of both macro and micro conversions.

Segmentation

Segmentation in GA is about going beneath the surface of the data. It's very easy to look at top line data, see some goals, and watch goal completions over time, but drilling beneath the data is where things really come into focus and clarity.



Figure 10.
Segmentation example.

Here's an example where applying segments allows us to see goal conversions for different kinds of traffic: paid search, non-paid search and direct traffic. Now we can see what's driving those overall conversions when it comes to marketing efforts.

Segmentation works really well in GA because the entire tool is essentially a gigantic relational database. There are over 85 dimensions and 230 metrics at present, and this number keeps going up as Google adds new features. That's nearly 20,000 combinations if we just do a one by one matrix to put those together, and in the API you can actually segment your data by seven dimensions and 10 metrics at a time. There are many more ways to segment than you could ever use.

Within the GA reporting interface and tools, there are six ways to slice and dice your data:

- **Standard Report Drilldowns**
- **Secondary & Pivot Dimensions**
- Custom Report Drilldowns
- **Advanced Segments**
- 3rd Party Tools
- Data Export API Tools

We're going to focus on the three methods in bold type, starting with standard report drilldowns.

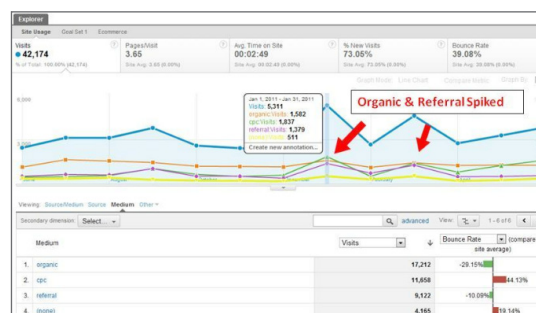


Figure 11.
Standard report with drilldown.

In a top line metric of visits charted over time, we might see that something happened during a couple weeks of the time period. By applying segmentation on top of that, we can drill down to see the traffic sources contributing to those spikes in traffic as different lines graphed. We see all the data side by side.

This is simple segmentation. We go beneath the surface by taking one metric, visits, and breaking it down by medium, so we can see what contributed to those increases and changes in traffic.

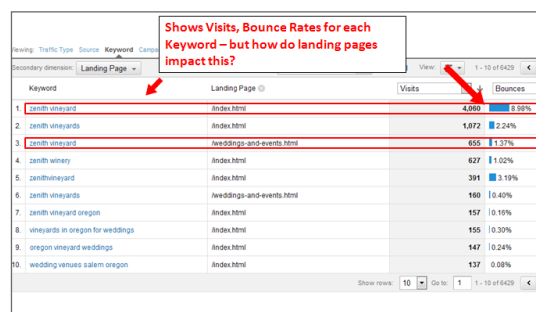


Figure 12.
Secondary dimension segmentation.

The secondary dimensions feature allows us to look deeper on a question such as, “What is the impact of traffic coming in from the keyword ‘Zenith Vineyard?’” We can find out how that answer changes when we look at landing pages, where people enter the website. We can see that data side by side and gain insight on the impact landing pages have on bounce rate.

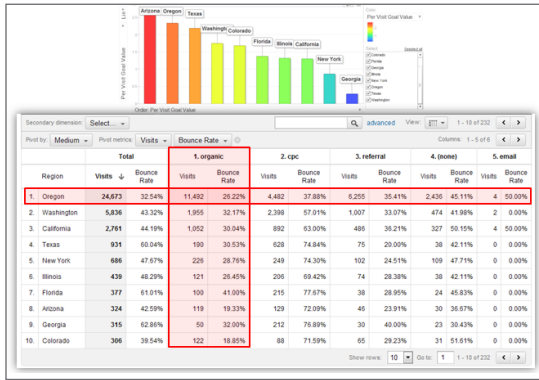


Figure 13.
Pivot segmentation.

Pivot segmentation is useful because we can see so much data side by side. In this example, you can see regional geographic data compared with information about what medium people are using when they come to the website. I can see total organic traffic, and I can see traffic from each state. When I highlight the row for Oregon and compare bounce rates between different sections, I can see that the bounce rate is 32% for all traffic from Oregon. But, when you're coming from Oregon via organic search it's 26%, and when you're coming from Oregon via CPC your bounce rate goes up to 37%. We're taking several dimensions of data and a couple of metrics and putting them together in one screen to get some fresh perspective.

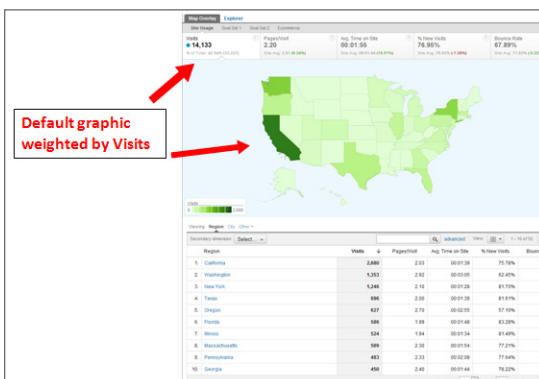


Figure 14.
Segmentation by geography - visits.

Segmentation by geography can be a lot of fun. When you go into the traffic segmentation reports, the default metric shown is visits, which is usually just going to follow population density and not be very interesting. However, it can get extremely interesting when you start applying other metrics, like pages per visit.

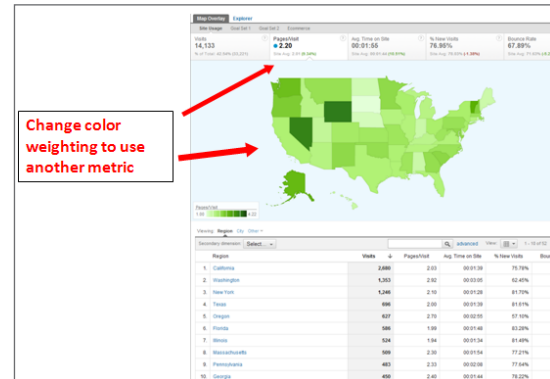


Figure 15.
Segmentation by geography - pages per visit.

Now you can see that people in Wyoming and Nevada are exceptionally interested in this website. They're spending more page visits compared to other areas of traffic. You can go on to apply other metrics like goal conversion rates, per visit time on site, and bounce rates to this map. You can also apply advanced segments and start to slice and dice and be really creative with analysis.

This type of geographic data exploration can yield surprising results. I once had a client with a product that would appeal to people in the colder temperature, leading us to believe we should advertise to lower latitudes. However, by doing this type of analysis we found that there were a number of people from lower U.S. states ordering the product in the summertime for uses we hadn't considered. That opened some new ideas and opportunities for marketing.

Tracking your marketing

Another important area of segmentation is traffic source segmentation, and this also gets into general traffic measurement and the importance of tagging your campaigns and marketing efforts. GA can track any kind of marketing. It's not limited to just measuring AdWords or Google traffic sources.

The tracking approach in GA is not code-based. Instead it's aligned around what I call "name it as it is." Rather than defining a numeric code that you have to decipher later as you're looking through your reports, you can tag your reports in GA with a word or phrase that will actually show up in the reporting interface. So if you tag a link as 'email', it's going to show up in your GA reports as 'email'. That lowers the bar and makes tagging and tracking a lot easier to do. It also makes the data much more readily meaningful within the tool.

If you aren't tagging your marketing activities, a few things are going to go wrong with your data:

- **Email traffic will show up as direct traffic.** If a user clicks on a link in an email and lands on your website, there's usually no referrer. The user has either clicked the link from a mail program on their computer or they're coming from a secure webmail website interface, and that will generally show up in GA as direct. Sometimes you'll see mail.yahoo.com, Hotmail, or other webmail providers reported, but generally email visits will be direct unless you tag them for tracking. Therefore, your email campaigns can create big spikes in your direct traffic report. This ends up polluting your direct traffic report, degrading your ability to understand how many people are just hearing about you organically and typing in your URL. You also won't be able to accurately see how well you're doing with an outdoor advertising campaign, for example
- **Banner campaigns will show up as referring.** You can avoid this by tagging your banner links with "banner".
- **Offline campaigns won't be tracked.** You can easily track the effectiveness of offline campaigns by combining a vanity URL with a tracking code.
- **Paid search will get mixed up with organic search.** Unless it's through AdWords, paid search must be tagged. Otherwise you have no way to differentiate it from organic search and track your success.

| Campaign | Medium | Source |
|-------------|---------|-------------------|
| spring-2011 | email | newsletter |
| spring-2011 | email | special-offer |
| spring-2011 | banner | example.com |
| careers | banner | example.com |
| careers | partner | affiliatesite.com |
| careers | cpc | yahoo.com |

Figure 16.
Campaign examples.

GA has three primary dimensions: a campaign, a medium and a source. This allows you to take a multi-dimensional approach to analysis. You can use a common name for a campaign, but associate that campaign with different marketing mediums and sources. That enables you to drill in, segment, and cross-analyze your marketing efforts, based on, for example, all of the mediums or the sources involved in the Spring 2011 campaign, or all the different mediums involved in careers. You can also look at the medium banner and see all the campaigns receiving banner traffic, or all the different sources that banner traffic is coming from. It's very flexible and fluid, but it's dependent on tagging your URLs.

Creating tagged URL codes

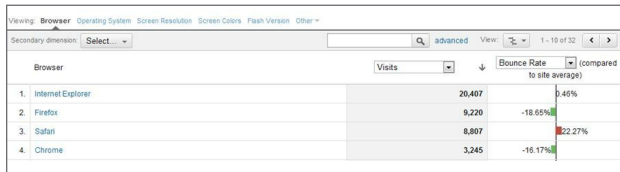
Consistent and valid URL codes are the key to tracking your marketing effectively. Google provides a tool on their support website, but it's fairly tedious and I don't recommend it. The main problem is that it lends itself to creating different naming conventions. For example, someone might call it "email" with a little "e", and then next week someone's going to call it "e-mail" with a dash, and the next week someone's going to call it "Email" with a capital "E", and all of these will show up as different rows in your report, making your data very cluttered and difficult to analyze.

I developed an Excel-based URL builder tool that avoids these issues. It uses simple formulas and rules to help document the naming conventions you've been using and ensure that the URL that is created is valid. The tool basically walks you through the process. You start out with your original link, you define your medium, source, campaign, and ad version. Once these are provided the tool provides a properly tagged link. Then you copy that tagged link and use it as destination URL in your email.

Campaigns in GA can be quite in-depth, and I recommend using some of the resources I've covered earlier to become more sophisticated in your approach. But the basic principle for URL tagging is very easy and makes sense if you've been using other tools. The biggest difference with GA is that you're just naming it as it is.

User experience analysis

This is an area that I find is often overlooked in GA, but you can get tremendous value by spending some time here. User experience analysis is simply looking at how technology impacts the user experience.

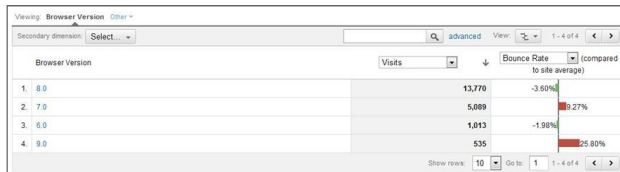


| Browser | Visits | Bounce Rate | (compared to site average) |
|----------------------|--------|-------------|----------------------------|
| 1. Internet Explorer | 20,407 | 0.46% | |
| 2. Firefox | 9,220 | -18.65% | |
| 3. Safari | 8,807 | 22.27% | |
| 4. Chrome | 3,245 | -16.17% | |

Figure 17.

User experience analysis example 1.

In this example, we're looking at how bounce rates vary with traffic from different browsers. We can see that Safari users have a much higher bounce rate than average. This would be a signal to look into what type of problems Safari users might be experiencing on your website.



| Browser Version | Visits | Bounce Rate | (compared to site average) |
|-----------------|--------|-------------|----------------------------|
| 1. 8.0 | 13,770 | -3.60% | |
| 2. 7.0 | 5,089 | 9.27% | |
| 3. 6.0 | 1,013 | -1.98% | |
| 4. 9.0 | 535 | 25.80% | |

Figure 18.

User experience analysis example 2.

In this example, you can see that Internet Explorer 9.0 users have a very high bounce rate, while other IE users are much closer to average. This indicates that there's a compatibility problem going on for IE 9.0 users, so now you have a catalyst to be able to go in and improve your website usability.

There are other issues that come up around user experience. Sometimes we'll see that Safari users have almost no e-commerce conversions. This is usually

because the last page of their order has something that's browser-specific, and users are unable to check out and complete their order. This can go unnoticed for weeks or months, and a lot of revenue gets lost.

You can evaluate your conversion rates and time on site factors by browser, operating system, screen resolution, and other technology factors. Screen resolution is a great one that can make a significant difference for many businesses. How does the design of your website and the screen resolution makeup of your database work together for better or for worse?

Entrance point analysis

When it comes to entrance point analysis, the important point to consider is that what you think of as the front door to your website – your homepage – is probably not in fact the primary entry point. On my website, the homepage only counts for 18% of entrances. The other nine pages in the top 10 account for another good chunk, and the remaining 43% comes from hundreds of other pages. A lot more traffic, comes in through pages other than the homepage, and that means I need to be thinking about many pages on my website as portal pages.

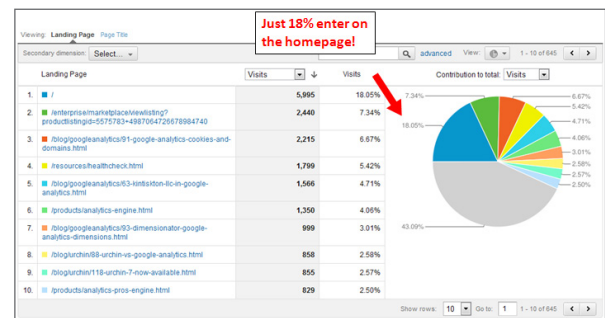


Figure 19.

Entrance point analysis example.

One of my clients, a publishing company, was preparing for a redesign when we realized that the majority of people were coming into their website through author information pages. That radically changed the design direction because we were able to think about introducing to people to the brand and the company through the site's book detail and author detail pages. Those pages ended up being designed as portals, than just having a narrow focus on a single book or author.

Conclusion: taking action

Taking action is the ultimate goal of all your web analytics. You're collecting relevant data so you can improve your website, your marketing, and your business. I like to think about the example of a classic bucket brigade at a country fair – a bunch of people get in line and attempt to fill up a tank of water with buckets that are full of holes by passing the bucket down the line. This is exactly what happens online when there's a funnel and we're trying to get as much as we can to the bottom of the funnel, but it's full of holes.

If you want to improve bottom line orders, or conversions or whatever your business needs, there are two ways to do it. Just like in the bucket brigade, if you want to win, you either need to pass more buckets back and forth, or you need to plug some of the holes. Most companies are still taking the first route, but web analytics can help you do much more for less – which is certainly the smarter option in the current economic climate.

| Get More Traffic | Get More from your Traffic |
|------------------------------------|-----------------------------------|
| 1. Spend more money, hope it works | 1. Establish reliable measurement |
| 2. Get more exposure | 2. Segment your data |
| 3. Lose more in the process | 3. Identify problem points |
| 4. Get more in the end | 4. Make improvements |
| 5. Rinse, repeat, keep spending | 5. Get more with less |

Figure 20.

Two ways to win.

About Tableau

Tableau Software helps people see and understand data. Ranked by Gartner in 2011 as the world's fastest growing business intelligence company, Tableau helps anyone quickly and easily analyze, visualize, and share information. More than 7,000 customers across most industries get rapid results with Tableau in the office and on-the-go. Tens of thousands of people use Tableau to share data in their blogs and websites. See how Tableau can help you by downloading the free trial at www.tableausoftware.com/trial.

About the Author

Caleb Whitmore is the founder of Analytics Pros. He is a veteran user of GA and a frequent speaker and blog contributor. He is also the co-author of the book Performance Marketing with Google Analytics and the founder and chair of the GAUGE Google Analytics Conference.