Advanced Web Metrics Whitepaper

Tracking Offline Marketing using Google Analytics

by Brian Clifton (PhD)
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Preface

This whitepaper is aimed at web managers, digital marketers and webmasters who wish to track and assess offline marketing efforts via their website.

Four methods to do this are presented - the first two are technical approaches that require an understanding of how to set up redirection on your web server. The latter two are non-technical alternatives.

This whitepaper is an adaptation of Chapter 11 from the book - Advanced Web Metrics with Google Analytics, second edition by Brian Clifton (Wiley 2010).

From The Author

Thank you for downloading this free whitepaper. Documents such as these represent the culmination of a huge effort on my part to research, write and update the contents. My hope is to educate and inform so that you track and optimise your campaigns more effectively than before.

As for all authors who publish their work for free, I would greatly appreciate your feedback - a tweet (@brianclifton) or comment on the companion blog site would be great: Advanced-Web-Metrics.com.

Brian Clifton

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Introduction - Integrating Online & Offline Tracking

When it comes to tracking offline marketing campaigns, many marketers are unaware of the potential of using their existing web analytics tool to measure success. Typically, for data, the reliance is on traditional, imprecise data such as print distribution figures (a.k.a. readership numbers), viewing figures (TV audience metrics), or footfall metrics ("20,000 people walk pass this sign every day").

However, none of these metrics can provide any indication of success. That is, was my print, TV, or radio ad successful? Yet, if these readers, viewers or listeners visit your website as a result of exposure to your offline campaign, you can access a rich stream of success metrics.

For example, which specific campaign led to the most new subscribers, generated the highest sales leads, drove the most transactions, was the most cost effective for generating exposure (increased web site traffic), resulted in the most engaged visitors, and so forth.

Even if visiting your website is not the main objective for your offline campaign, many people will seek further more detailed information by viewing your website content prior to visiting your store or calling you telesales department. Hence, any offline campaign that leads visitors to your website can be tracked and benchmarked against other marketing efforts - both on- and offline.

Surprisingly few organisations, or their agencies, are utilising their web analytics data to do this. Perhaps it is the technical difficulty of understanding "redirection" that is a barrier for marketers, or a lack of awareness of the alternatives. However, there is a clear upside to showing results of an integrated campaign.

In this whitepaper I describe how to use four techniques with Google Analytics - two technical (redirection) and two non-technical - for measuring the success (or not) of your offline marketing campaigns.

The Simple Uplift Approach

Consider the Google Analytics chart shown in Figure 1. This chart measures the uplift in web visitor numbers while running a print advertising campaign.

Figure 1   Observed uplift in visitors from print advertising
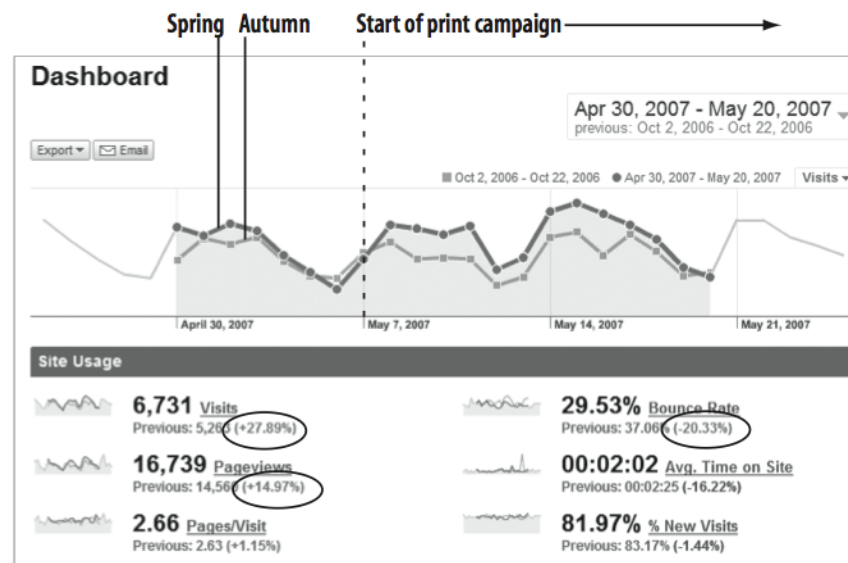
> **Tip:**
> Take care when comparing date ranges, as shown in Figure 1. It is important to align with the days of the week; that is, compare Monday with Monday, and so on. Seasonality also needs to be considered; otherwise, you may be giving undue credit to an offline campaign. If possible, try to normalize your numbers by taking into account the background growth in visitor traffic received between the time periods considered.

Both data lines in Figure 1 represent a three-week time frame; one in autumn and one the following spring. A magazine ad ran for the last two weeks in spring (May 7 to May 20).

As you can see, the uplift over the entire three-week period in visit and pageview numbers is significant, at +28% and +15%, respectively. Page bounce rates are also reduced, at -20%.

Are these uplifts real?

Fluctuations due to seasonality or general visitor growth are taken into account by displaying data one week prior to the print ad campaign—that is, before the campaign the visit numbers closely align between the two time periods (including pageview data, though this is not shown). The hypothesis is therefore that the print campaign drove the uplift.

To confirm this hypothesis, you can examine uplifts from referral keywords (specifically branded terms) and direct traffic. Uplift from direct referrals represents people remembering your printed URL, while uplifts in search visitors using your brand terms are from people unable to remember this. Expect to see one or both of these trends in order to confirm the positive effect of the print campaign.

Even if the afore mentioned caveats still point to success, the strong uplift observed in Figure 1 does not equal 100 percent causality. A better solution to gain more certainty is to combine offline campaigns with unique landing-page URLs that these visitors use.

These more advanced approaches are discussed next.

Choosing a More Advanced Approach

Depending on your needs, there are FOUR ways to use unique landing page URLs. These are not mutually exclusive; therefore understand the criteria for choosing each method before moving to the How to sections and deciding upon a strategy.

With technical expertise (using web server redirects), and a well thought through URL structure, you can promote your brand via offline channels and track its results within Google Analytics. This is the basis of using **vanity URL** and **coded URL** approaches.

Where IT expertise is not so readily available, combining your offline marketing with **search engine marketing** offers a non-technical alternative.

Taking this one step further, **URL shorteners** provide a complete self managed solution for anyone engaged in print marketing or publishing.

> **Note:**
> At this stage, ensure you are familiar with Campaign Tracking in Google Analytics. That is, the use of landing page parameters:
>
> www.google.com/support/analytics/bin/answer.py?answer=55518

Choosing to Use Vanity URLs

Recommended when you have strong product brand awareness, with all web content hosted on a single central domain. examples include ThinkPad, iPod, Castrol, Gillette, Colgate, Aquafresh, Big mac, Fanta, Snickers, and so on.

This is a technical solution requiring communication with your web development team.

> **Note**:
> The example names given for tracking offline visitors are for brand recognition only. They do not reflect the actual website architecture or strategies of the sites in question.

Choosing to Use Coded URLs

Recommended when you have a strong company brand or when your products already have separate websites. examples include IBM, Microsoft, Google, Kellogg's, Kodak, BMW, and any product that relies on model numbers for identification, such as cell phones, cars, printers, or cameras.

> *This also is a technical solution requiring communication with your web development team.*

Choosing to Combine With Paid Search

Recommended when your brand values are less significant than your product or service values or your target audience is more price oriented than brand oriented. Examples include the vast majority of small- to medium-size businesses, the travel industry, the insurance sector, utilities, groceries, and office supplies. That is, industries where there is little brand loyalty.

> *This is a non-technical solution requiring communication with your digital marketing team.*

Choosing to Use URL Shorteners

Recommended for print campaigns. For example, newspaper and magazine advertising, links in printed books, whitepapers.

> *This is a non-technical solution that can be self-managed.*

How to Use Vanity URLs

If your website content is held at `www.mysite.com` and you have a strong product brand that has greater awareness than your company brand, consider using a vanity URL of `www.myproduct.com` for your offline campaigns such as television, radio, and print. Use your website (`www.mysite.com`) only to promote via online marketing.
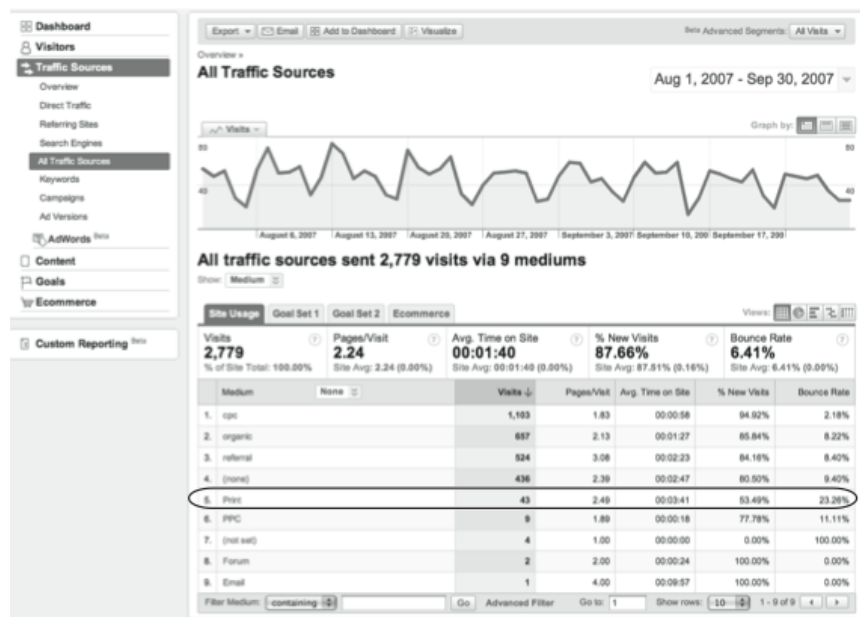
Clearly, you don't want to build two separate websites to promote to offline and online audiences. Their needs are the same; the only difference is how they find your website. Apart from the resource overhead, you should not build duplicate pages, because the search engines will penalize you for this.

To avoid duplicate content, apply permanent redirects to your vanity URLs, such as `www.myproduct.com`. Redirects on your web server capture the different URLs used by your offline visitors, append tracking parameters, and then automatically forward them through to your main content website, such as `www.mysite.com`.

The process takes a fraction of a second and shows no visible difference to your offline visitors. They type in a vanity URL (`www.myproduct.com`) and arrive on your official website (`www.mysite.com`) with tracking parameters appended. In effect, you are pretending to have product-specific websites for your offline visitors, using this to differentiate, and then redirecting them to your actual content.

You then view offline visitors by identifying the campaign variables used. In Figure 2, the offline ad is identified in the reports by the medium Print. How to setup your redirects is described next.

Figure 2 **Visits from a print campaign tracked using a vanity URL and redirect**

How to Setup Redirects for Vanity URLs

Redirects are an important aspect of using vanity URLs, because they avoid any duplicate content issues (bad for SEO) and allow campaign variables to be appended to the final URL destination.

Two types of redirects are possible: permanent (status code = 301) and temporary (status code = 302). From a search engine optimization point of view, it is important to apply permanent redirects so that the final destination URL is the one that is indexed by the search engines; otherwise, the search engines ignore the content.

A note on redirects:
There are numerous ways to perform a redirect, including PHP, JavaScript and web server configuration changes. For this whitepaper I have chosen the latter, that is, modifying the web server configuration for an Apache web server. As a best practice guide, ensure your chosen redirect method transparently passes through any URL query parameters - those values that proceed a "?" in the original URL remain in the redirected URL, and that the original referrer information is also maintained.

The following is an Apache example of redirecting the vanity URL (`www.myproduct.com`,) used only for print campaigns, to the official web address containing the actual content (`www.mysite.com`):

```
<VirtualHost>
ServerName www.myproduct.com
RewriteEngine on
RewriteCond %{HTTP_USER_AGENT} .*
RewriteRule .*
http://www.mysite.com/?utm_source=magazine&utm_medium=print&
utm_campaign=March%20print%20ad [R=301,QSA]
</VirtualHost>
```

The rewrite code is placed in the virtual host configuration section for (`www.myproduct.com`) in the httpd.conf file, or separately in a `.htaccess` file of the web server root directory. Other web servers use a similar method.

In this redirect example, Google Analytics campaign variables are used so that you can uniquely identify the offline campaign. These are then permanently passed onto the official website using the Apache `mod_rewrite` option. The query string append (`QSA`) ensures that any other query parameters are also redirected. After a redirect takes place, you should see your campaign variables in the address bar of your browser. If not, the redirect has not worked correctly, and this will need to be resolved.

For the example redirect shown in Figure 2, the offline visitor can be identified in your Google Analytics reports anywhere the `source`, `medium`, and `campaign` variables are displayed. In this case, the source is "magazine," the medium is "print," and the campaign is "March print ad."

Using these variables are effective when the only offline campaign running is a print ad. That is, you can redirect to only one place at a time. If this vanity URL is required for other offline campaigns running at the same time, then change the `utm_source`, `utm_medium`, and `utm_campaign` tracking variables to the generic text "offline." You then track your offline marketing in aggregate.

Using vanity URLs in this way for managing offline campaigns is very effective, assuming you have multiple domains to use and the product you are selling is not trademarked or protected by someone else, preventing you from using it as part of a domain. Don't use this method if you already have your products hosted on separate websites—see the following section on using coded URLs.

> **Note:**
> The rewrite code requires the `mod_rewrite` module to be installed. Most Apache servers have this by default (see http://httpd.apache.org/docs/mod/mod_rewrite.html). Ensure that the RewriteRule is contained on one line within your configuration file (up to and including `QSA]`); and if spaces are required, use character encoding (`%20`).

How to Use Coded URLs

If your company brand has greater awareness than your products, then consider using coded URLs within your offline campaigns. These are of the following form:

```
www.mysite.com/offer_codeX
www.mysite.com/offer_codeY
```

Coded URLs are unique to your offline campaigns; they are not to be displayed anywhere on your website and are not to be visible to the search engines. To clarify, that means your content should be visible to the search engines, but this will be via a different *online-only* URL such as `www.mysite.com/productX`.

By using coded URLs in your offline marketing, you will know that visitors to the subdirectory `/offer_codeX` must have come from your offline ad; there is nowhere else to find it. Of course, there is always the possibility that the visitor will remember only your domain (`mysite.com`) and not the specific landing page (`offer_codeX`); this is common for strong brands. It is therefore important that your offline campaign provide a compelling reason for the visitor to remember your specific URL.

For example, this can be the promotion of special-offer bundles, voucher codes, reduced pricing, free gifts, competitions, unique or personalized products, and so on that are available only by using the specific URL you display in your offline campaigns.

A useful tip when employing this technique is to use a landing-page URL that can be remembered easily, tying it in with your message and the medium. This sounds like common sense, but you would be surprised what a little thought can achieve for you. For example, for a TV campaign you could consider the following:

```
www.mysite.com/tvoffer
www.mysite.com/10percent
www.mysite.com/getonefree
www.mysite.com/twofourone (or /2for1, /241)
www.mysite.com/xmas
www.mysite.com/sale
```

Identifying with your TV branding slogan or campaign message can be a very effective way of keeping your full URL in the viewer's mind, because this associates your website with their viewing activity.

As with the use of vanity URLs, redirecting visitors is required. This enables you to avoid producing duplicate content and appends tracking

parameters to the landing page. The only difference here is that the redirection is applied to a subdirectory, not the entire domain. This is desirable if your products are already hosted as separate websites.

Even without redirection, as long as the URLs remain unique to your offline campaigns and are neither shown as links within your website nor indexed by the search engines, you will still be able to measure the number of offline visitors to these specific pages. The purpose of the redirection is to help you compare different campaigns within your Google analytics reports. This is key for marketers attempting to understand the performance of numerous marketing channels.

> **Using sub domains as coded URLs**
> As an alternative to having a coded URL as a directory, you can also use sub domains instead. For example:
> `http://offer_codeX.mysite.com/offer_codeX`
>
> Personally I avoid this as replacing the well established format of `www` with `offer_codeX` is a confusing syntax to all but the most savvy of Internet professionals.

How to Setup Redirects For Coded URLs

As before, this example uses the Apache `mod_rewrite` module, which most Apache servers have installed by default. See http://httpd.apache.org/docs/mod/mod_rewrite.html:

```
<VirtualHost>
ServerName www.myproduct.com
RewriteEngine on
RewriteCond %{HTTP_USER_AGENT} .*
RewriteRule /xmas.*
/productX/?utm_source=channel123&utm_medium=tv&utm_cam
paign=March%20tv%20ad [R=301,QSA]
</VirtualHost>
```

Ensure that the `RewriteRule` is contained on one line within your configuration file (up to and including `QSA]`), and if spaces are required within the URL, use character encoding (`%20`). Adjust your campaign-tracking parameters accordingly.

How to Combine With Paid Search

Combining with search is the most attractive to marketers as it does not involve any changes to your website. Marketers can manage the setup themselves with no input required from the IT/web development teams!

Use this technique when your brand values are less significant than your product or service values, or your target audience is more price oriented than brand oriented. In these situations remembering a URL can be difficult for your potential visitors—your brand is simply not strong enough to gain traction. Therefore, use search as part of your offline message.

For example, running a radio ad that uses something like:

> "*Find our ad on Google by searching for the word productpromo and receive 10 percent off your first order.*"

By creating a paid search campaign ad (e.g. AdWords) just for this campaign, targeting a unique word or phrase that is relevant only to people who have heard your ad, you not only provide a strong incentive for visitors but also directly assign these visitors to a specific offline marketing effort.

This extra step of asking your potential audience to first go elsewhere (to a search engine) has a small drawback: you pay for the click-through on your AdWords ad. However, using a unique search phrase means you should be the only bidder and hence would pay as little a one cent per click-through.

For such a small price, the upside is considerable: you have full control of the ad message and landing-page URL. That means each campaign

(print, TV, display, radio) can have a separate landing page and hence is completely traceable, without the need of going to your IT department and asking for redirections to be set up.

Example keywords to use in your paid search campaign include the following:

- 10percent
- productX101
- whyCompanyname
- '1-800-123-BIke—your toll free number (U.S.)
- 207-123-4567—your telephone number
- Signal House, London Road—the first line of your address

Large brands, for example, Pontiac, have used this technique to great effect.

> **Tip:**
> Check your paid search (e.g. AdWords) listings regularly, because competitors may pick up your campaigns and start to bid on the same keywords!

How to Use URL Shorteners

This is a technique for measuring the effectiveness of **print campaigns** with the added benefit of no IT to worry about.

Shortener services, such as `bit.ly`, `tinyurl.com`, `ow.ly`, `tr.im`, `goo.gl` etc., offer the ability to take a long URL and shorten it to a fixed length. For example:

`http://www.mysite.com/categoryX/productX/summer_prom oZ.htm`

can become: `http://bit.ly/cjMjFz`

The recent growth in URL shortener usage matches that of Twitter, where messages are limited to 140 characters. That is, a fixed length shortened URL saves a lot of valuable space!

The technique can also be applied to tracking offline visitors by embedding campaign parameters *before* the long URL link is shortened.

For example, say I wish to track readers viewing my magazine ad in the fictional publication Gadgets Weekly. My landing page URL is:

`http://www.mysite.com/gadgets/productX.php`

Appending Google Analytics campaign tracking parameters this becones:

`http://www.mysite.com/gadgets/productX.php?utm_source=Gadgets%20Weekly&utm_medium=print&utm_campaign=summer%20promo%202010&utm_content=graphic%20design%201`

To clarify, the four campaign parameters appended, are:

Source:	**Gadgets Weekly**
Medium:	**print**
Campaign:	**summer promo 2010**
Content:	**graphic design 1**

Obviously, displaying the full, traceable URL (all 155 characters) in the magazine advertisement is not going to work - it will either be off putting to the reader, or they will simply type `www.mysite.com` in their browser and try to locate the specific product from your home page. Clearly, neither of these is user friendly.

The solution is to shorten the full URL with your campaign parameters using `bit.ly`, or other such service, to a fixed length. This is then used instead in your print campaign. The New York Times uses this approach for tracking readership of its printed newspaper - see the example of Case Study 2.

Case Studies

Case Study 1 - Using Coded URLs

To help guide you through the decision-making process of which method to choose, I describe here the approach I used for the book, Advanced Web Metrics with Google Analytics. That is, I wanted to track whether readers use the URLs provided in the book text to visit *www.advanced-web-metrics.com*.

Fortunately, I possess the skills to fully manage the IT requirements of my Apache server. Therefore, all four offline tracking methods were available to me: vanity URLs, coded URLs, combining with search and URL shorteners.

First, I ruled out combining with search because my offline marketing extends only to print—the book itself. In addition, my target keywords, for example, "Google Analytics," would attract a very broad and poorly qualified audience. I therefore needed to consider which type of redirection URLs are most suitable.

For my situation as an author of content wishing to track reader engagement, my brand is the book title and its web address, (`www.advanced-web-metrics.com`). My "products" are chapters of the book and I wish to track reader engagement on a per-chapter basis.

Therefore, relatively speaking, I have strong brand awareness and low product awareness. For example, the product "Chapter 11" is meaningless unless you are aware of the book title.

Hence I use coded URLs throughout the book to track readers. For example, I use `www.advanced-web-metrics.com/chapter11` in the text of Chapter 11. This redirects to the website with campaign parameters appended, allowing me to view the activity of offline readers in my Google Analytics reports. The URL is not used anywhere else on my website and is not visible to the search engines.

> **Note:**
> As you will see if you try the link, I use the parameter `utm_id=81` to differentiate such visitors (campaign parameters are added in the background).

Case Study 2 - Using URL Shorteners

Taking the first case study example further, I could have also decided to use shortened URLs of the form:

```
http://bit.ly/9Iuoqm
```

I can even customise the six character URI (`9Iuoqm`), for example, to:

```
http://bit.ly/chapter-11
```

Though the customisation can only be applied once (it cannot be edited later for a different campaign), and must of course be available - not in use by another `bit.ly` user.

The restrictions of customisation, plus the loss of my brand within the link (`www.advanced-web-metrics.com`), are the reasons why I did not choose this method for my print campaigns. However, notice on the last page of this whitepaper, in the "About the Author" section, I have used a `bit.ly` link to the blog site, Measuring Success. If you follow that link I will know you have read this i.e. my offline/printed whitepaper!

This technique of using shortened URLs to track offline campaigns/activity is employed by much larger publishers than myself - with the approach is exactly the same. **The New York Times** is one such example. It uses shortened URLs for tracking its print readership within its technology section of the newspaper. In that part of the paper, the NYT answers reader's questions. A summary of the solution is printed in the newspaper with a more detailed response published on their website.

The link printed in the newspaper referencing the more details page online, uses `bit.ly`. With this technique in place, the New York Times is tracking *exactly* which article, section and date a visitor reads and then subsequently visits the `www.nytimes.com` website - an unheard of level of journalistic accountability for the publishing world!

> The NYT also use their own URL shortener domain - `nyti.ms` (powered by Bit.ly).
>
> Similarly Amazon uses `amzn.com` as its shortener domain.

Summary

Tracking offline marketing efforts using web analytics tools is readily achievable, though few organisations actually take the trouble to implement it. Hence, there are significant opportunities to jump ahead of your competition by optimising your offline campaign performance to be highly effective and cost efficient.

By following the steps within this whitepaper, you can select which particular technique is most suited to each of your offline campaigns.

By understanding the redirection methods and how these can be applied to measuring marketing efforts, both IT and Marketing personal can facilitate communication between each department - so that one can advice the other.

In addition, there are non-technical techniques for specific use cases - either combining with search, or using shortened URLs. These can be setup and managed without the need to involve your IT department.

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About The Author

Brian Clifton (PhD), is an independent author, consultant and trainer who specialises in performance optimisation using Google Analytics and related tools. Recognised internationally as a Google Analytics expert, his latest book, the second edition of Advanced Web Metrics with Google Analytics is used by students and professionals world-wide.

Brian has been involved in web design and SEO since as far back as 1997, when he built his first website and started defining best practise to advise clients. From 2005-8 he was Head of Web Analytics for Google EMEA, defining the adoption strategy and building a team of pan-European product specialists from scratch. A legacy of his work is the online learning centre for the Google Analytics Individual Qualification (GAIQ).

Brian is the Founder, CEO and Senior Strategist for GA-Experts.com – a company specialising in performance optimisation using Google Analytics and related products for global clients.

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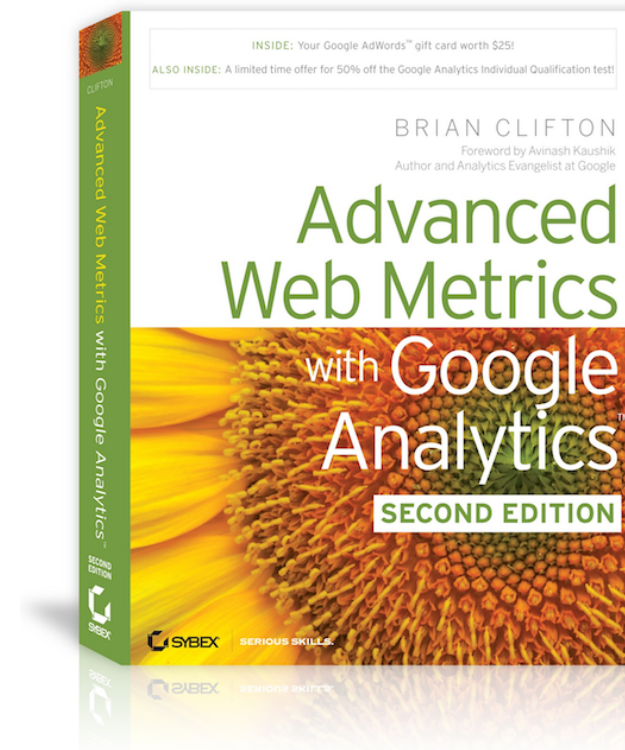
Advanced Web Metrics with Google Analytics is available form: Amazon (including Kindle), Barnes & Noble and directly from Wiley.

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