

Definitions of Web Analytics Metrics by Classification of Function

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SUMMARY:

Web analytics metrics are comprised of hundreds of different angles at understanding quantitative data as it relates to human behavioral interaction with a website or online informational organism. Standard definitions¹ of metrics exist with the purpose of classification of items for the general understanding of the terms and how they can be shared interchangeably with different sites regardless of the primary virtue or function of the site, or in pages as contributive components the site. In an effort to help garner understanding of key concepts of definitions, it is our contention that current defined metrics used, and the means to arrive at the definitions, may, in fact, be flawed as a result of being erroneously derived, and are, thereby, moderately inapplicable. Further, it is the belief of this analyst, and not necessarily a reflection of the company, that more appropriate derivation of virtue and function exists in the concept of function itself.

The purpose of this study and publication is to illustrate the key conceptual differences between the current set of definitions widely accepted as valid for web metrics; to provide evidence for the statements above with regard derivation and standards in their current state being incomplete; and to offer a complementary derivative methodology which will, when used, help both users and outsiders more completely, and specifically, understand the full scope of the metrics being discussed. In addition, we would also like to contend that definitions are likely to change based on context and increasing practice participation and contribution.

Notable Points of Dissent

The Web Analytics Association, in a publication dated 16 August 2007, stated definitions by which they sought to identify and explain key components of analytics measurement in an effort to standardize language and stimulate discussion on related topics. *While the overarching concepts of the piece and the contribution to the body of work on the topic is, by far, the most definitive and collaborative piece of information on this subject to date, it is my belief that there are flaws and usurpations which have rendered portions of the document, as well as its quality as a resource, needing of further discussion, review, and ultimately a consideration for republication.*

- 1. Individual term definitions provided by the WAA are inarticulate and, at times, excessively simple as to lead to more confusion.** As evidence for this statement I offer the breakdown of the 'Definition Framework Overview'. As a layout for definitions of subsequent relationship and consideration, WAA offers 'counts, ratios, and KPIs'. While this captures the quantitative nature of the practice of analytics, it stops short of defining terms within context. Further, this standard places concentration on the KPI and not the events which constitute their composition.
- 2. While 'Counts' and 'Ratios' are relatively universally understood topics of quantitative analysis, KPIs should remain subordinate to the idea of some goal or objective.** KPI is a relatively analyst subjective term. Leaving a building block term to be defined by the people using it reduces standardization to limitation to individual perspective. This, by definition, removes this concept from academic consideration as it hinders the development of common ground.
- 3. The concepts of 'Dimension' and 'Universe' are unnecessarily complex.** Segmenting and isolating are common practices of web analytics. The concept of the different 'zones' or realms of data which theoretically exist within some formatted and identified concentricity should be assumed, or, at the very least, expected. This definition of such a ubiquitous concept with such subjectivity should be rejected simply by the attempt to define it. This is not to say that there should not be some standardized presentation of how the analyst discloses such information.
- 4. The Definitions and Standards omit the concept of subjective disclosure.** In having produced weekly analytics reports for a year there is one thing I realized which, above all, is very important when disseminating information on metrics. This is the source, segment, and timeframe, as well as other methods for isolation of metrics, in order to ensure the accuracy and completeness of the scope of the report.
- 5. Relegating standardization to the analyst is not definition; or standardization.** Conceptually, the idea behind standardization is that the industry, its participants, contributors and moderators can reduce semantic noise by sharing in fundamental understanding of key ideas. Placing the onus for organization in the hands of the individual propagates the likelihood of continued deviation from a common grounds on which benchmarking and like-term comparison are possible.
- 6. The concept of a 'Page' as an analyst defined unit of content is flawed.** While most analysts would agree that this is a wonderful concept in practice, the majority would argue this is largely defined by the technical ascription of the independent solution.

Discussion, Rebuttal & Explanation

The practice of web analytics seeks to explain behaviors on a web site through the quantified and aggregated experience of its users. Statistical analysis and correlation data is then compared to trends, other sites, internal variant experiences, indices, and composite benchmarks. Using the comparable context of the analysis provided by a human or computational entity, areas of divergence are exposed and identified. Upon identification, an analyst creates suggestive hypotheses based on insights, pre-existing research publication, personal documented and undocumented experience, and any other source deemed valid enough to merit the risks involved.

The crux of analytics for making decisions is based in the ability to, and willingness to produce experimentation and results, based on valid data, to uncover relationships between hypotheses and best practices on a contextual basis. The goal in performing experiments is to, by means of *posteriori* analysis, seek to validate otherwise *a priori* claims. Consistent testing and aggregating of results from different types of tests helps to build a foundational support the claims as legitimate as well as produce some basis on which to build and support future claims. Context plays an important role in the claims as well as the hypotheses as there is a significant difference in the purpose, or virtue of any site or page within that site. Seeking to enhance context relevancy for multiple purposes of function lends itself to several types of testing to breed optimization.

The methods described later in this publication include:

1. Traditional A/B or Split Testing of Traffic
2. Multivariate Testing of Global or Universal Elements
3. Usability Testing & Analysis
4. Alternative or Hybrid Methodologies for Multivariate Testing
5. Content Suppression Validation

Optimization efforts and site improvements are built on the principle that actions which alter the site are meant to increase the contextual relevance of a site within its informational ecosystem of competitors and potential subjective overlaps of purpose. By receiving a larger share of traffic, measured in visits, a site has increased its volume of traffic and its consumption of relevant traffic within that subject space. The initial and primary goal of optimization, then, is to create a site which collects a high percentage or proportion of 'interest volume' from its subject space ecosystem.

In order to understand a site within its informational ecosystem, we need to understand the dynamics of the larger system of which it is a subset. A site will essentially comprise a percentage of available opportunities, some incalculable *n*, which it receives a share of. These are instances when an information related search is performed, impressions of paid search terms, banner ads, word of mouth, tangible medium etc.. At the macro level, these are millions, if not billions of opportunities based on broad interest in that space and relative to the timeframe in which they are defined. This proportion is called volume.

As the concept of volume for a site is realized its primary goals should be realigned to include the idea of context and objectives. Upon an early analysis of any site, it is not inconceivable that it may exhibit signs of high volume for contextually inappropriate traffic. Fundamental issues in semantics, word choice, jargon, or congruencies with non-related topics might inflate volume numbers to levels far outside a desired ratio of contextual relevance.

Determining context and role identification is the first step toward understanding foundations for analysis. While context, itself, is for all intents and purposes not a completely measurable concept, it lends itself to the ability to make a determination of the objective of a site, or the goal of the site within the narrower scope of its field. This is a pervasive and necessary concept in making assertions about a site with regard to its success or in order to take steps to identify and alter its end.

Context ultimately determines the objective of any site. By context, we adhere to the idea that the context and objective are ultimately inseparable for our purposes. It is the goal of an eCommerce website to sell products, services, software, or applications; thereby, contextually, we expect that the site should ultimately be geared toward the behaviors exhibited by people within the modality or propensity of making a purchase of one or many items available through the transactional means provided by that site. It follows then to say that it would be illogical to optimize a site for the purpose of informing a visitor to a site which has very high index relevance to medical information based on eCommerce metrics. As the objectives diverge, so to does the context. This is not to say that there are circumstances where items, subjects, and, consequently, strategies to improve optimization may overlap. However, in this instance, for our definitions, we assume that there is a sole virtue by which every other purpose is subordinate.

As context and objectives are connected, so then must be the means by which a site or page provides for their being attained. No successful site is an island. This means that the ability to achieve a goal on the site must be available, understood, navigable, and progressive to the user. An added facet of this is privacy/security, however, that being a different topic of tremendous debate and significance, this is not being considered for this publication. Means ultimately seeks to explain to the analyst or the interested party:

- **How a visitor got to the site**
 - *Referral: site, type, disposition, keyword, cost, volume*
 - *Non-Internet Means: newsprint, television, radio, word-of-mouth, brand awareness, presence, non-tangible media*
- **Which content did they act on in order to indulge their interest**
 - Pages, channels, navigation, on-site ads, promotions,
- **What point did they become confident in understanding to enable commitment to the objective**
 - What messages are working to create this confidence (*also described as 'uncertainty' or 'risk' reducing communication*)?
 - How and on what call are visitors becoming more than numbers?
 - What are visitors doing on your site to give you more information?
- **To what degree is this means successful in comparison to all other alternatives.**
 - At a point where this means is statistically valid, how does it compare to the other means to produce a similar result?
 - In what ways are this means different than other means to produce this result?

There is a difference between means and content. Where all means, are by some measure the content of a web site, the content of another site can remain a means to reaching goals and objectives on your site. Content can only belong to one party; where means are, or at least can be, shared. The content by description, for our derivative purposes, stops at the border between internal or domain based content versus those outside of the subject website domain. This is to say that, by an example, the production of valuable means can occur by humans or dynamic content operations both on and off a domain, whereas content measurement can ONLY be related those components which comprise a site.

Content exists independent of any means. While content can consistently represent a means to an objective of any type of site, it exists prior to its designation as such. The virtue of content, in and of itself, is informational. It can be a platform for a means, but need not serve any purpose besides that of a topical relationship to the larger, general, subjective content composition of a site. In fact, it can probably be argued that the content organism itself can exist on its own, however, in the absence of any other single component of a site finding useful content as segue to any other, it may lack function, and thusly, lack definition under our described guidelines.

Content is the cumulative supportive information and which is contained within the domain and scope of the site and its sub-domains. On the whole, this is part of what, for our purposes, we refer to as the *Informational OrganismTM*. This class of function contains all information placed within the navigable content of a site domain. It includes all applications, images, media, points of interactivity, and otherwise indexed material which is subjectively related to the topical purpose of the site, its navigation, or the objectives which it seeks to reach.

According to Dictionary.com, organism can be defined as: *“any complex thing or system having properties and functions determined not only by the properties and relations of its individual parts, but by the character of the whole that they compose and by the relations of the parts to the whole.”*

This poses an interesting angle at understanding the way in which means and content contribute to a site objective and how we determine the measurement of these components. It also provides for an individual website taxonomy by which a site should be understood, defined, and measured. Having said that, then, it should follow that metrics associated with this taxonomy, within the Informational Organism, should also be defined by their class of function with regard to each plays a role in creating relative and optimized informational paths to the objective; and, that objective, when achieved, feeds related information back to the analyst by which they might continue to understand a relationship between a site and its visitors.

In order to understand how objectives are measured within the context of their organism, we need to baseline statistical representations of the numbers which comprise proportions of a sites volume, and that volume in the larger context of its market. Visualized as concentric circles, volume is the measurement of not only the content of a site and its measure of interest within its field of alternatives, but also as a ratio of larger and smaller measurements of percentiles.

In an effort to further discussion on the topics described, as well as explain the bulk of my position, I have included here a list of definitions, as they may or may not be most appropriately defined. Please note, these are suggestions to entice discussion and debate on the topic for the purpose of bringing other considerations to light in hopes that the community can craft more complete, agreeable and standardized definitions by which we might develop terra firma.

Classes of Metrics

Metrics make website optimization possible. To better understand how metrics fit into the big picture the Web Analytics Association categorized them through *counts, ratios and KPIs* (key performance indicators)¹ While we do not dispute the ability to make decisions for business or optimization based on the WAA publication, research conducted by Wicked Business Sciences argues that website metrics can be categorized by function: four basic classifications: *volume, content, means, and objectives*. In some descriptions “means” and “content” may appear to be a part of the same grouping. By placing any metric into one of these groupings, we can more easily find context and relevance with each of the numbers and how they relate to your overall goals.

Volume

Volume is, quite simply, how many. It is purely quantified. Volume is any metric that deals with percentages of the whole. Metrics like visitors, visits, and page views are volume measures. Metrics of volume exist prior to any action and are most often used to create qualitative ratios.

Content

Content refers to the quantified behaviors exhibited on the site that help to gauge the user response to the presentation, layout, and persuasiveness of the materials on the page as it relates to the primary purpose. When the goal is optimization, content should be valuable to search engines, but engaging to the human audience. Messages need to be carefully crafted to entice the user and help them to find those portions of the page that enable them to interact with the action areas with little uncertainty. Content is the primary area for experimentation for both quantitative and qualitative analysis.

Objectives

Objectives are the actions that you want users to execute. These are exhibited behaviors indicative of the primary and ultimate purpose of the site. In a micro-optimization scenario such as landing page optimization, or application optimization, objectives may take on many forms. These may include proxy measurements such as engagement/bounce or move into more complicated metrics like time-on-page or even related congruent action measurements.

Means

The means are the aggregated paths into and away from the objectives. These are the most qualitatively rich and contextually fulfilling metrics of a website. The class of means includes page-based metrics, contributions, compositions, and also represents the multitude of opportunities to optimize the messages of the site at their most influential position. This area speaks directly to marketing.

Each of these general classes of metric can be broken down into sets of specific metrics that comprise the widely used measures of the Web. By organizing metrics by function we can show their relationships to each other, the larger classifications, and the world of people and behaviors that create them.

Volume Metrics

Volume is primarily broken down into traffic metrics or numbers independent of any operations. The Web Analytics Association refers to this as “count.” These metrics house the quantitative building blocks that are probably the most familiar to members of your optimization team. Some basic volume metrics include:

Page Views

A page view is the act of calling a single URL, completely loaded, from a server. With the increasingly volatile adoption of new technologies to provide useful content, this volume term is becoming increasingly fuzzy. Due to things like Flash, AJAX and XML, as well as RSS feeds, this term is still in use, but slightly less appropriate.

Visits or Sessions

A visit or session is the act of requesting one or more pages from within the defined parameters of a specific site. Each of the subsequent page views, so long as they remain within the agreed length of inactivity prior to termination of the session, counts as part of that single session. A common standard is to view 30 minutes of inactivity (or lack of tag collection) from a single site. Sessions also terminate when the browser is closed.

Unique Visitors

Ideally, a unique visitor would be the number of actual humans that visit your site within a specified time frame. This is not the case in a generic sense. Unique visitor refers to the unique browsers having acquired their first tag reported in a solution per IP in a given time frame. Cookie deletion can cause issues in this realm.

Cookie Deletion is the practice of removing browser cookies from your computer's cache of private data. With the tremendous amount of data being stored on these cookies, people regularly delete these chunks in hopes they retain privacy or make their machine run more efficiently. By deleting ALL cookies from a browser, the portion of the analytics or test version information stored on them is also rendered incomplete by the solution. Therefore, when cookies are deleted, a user, in essence, becomes a new user for all purposes. This might mean their Google Website Optimizer test participation variation might change, or that they are no longer considered a return or loyal customer by solutions like SiteCatalyst.

While this practice is reported in different percentiles of computer users by different research groups, it should not prevent using analytics to make decisions.

New Visitor

The WAA defines 'New Visitor' as: "The number of Unique Visitors with activity including a first-ever visit to a site during a reporting period."¹ This is a useful alternative to "First Time Visitor" because it addresses the idea that the user is not only a unique visitor, but that their first actual visit to the site occurred within the time frame of the report that it is generated in. This fundamental volume term can be extremely useful in gauging marketing and optimization efforts.

You can test new users to eliminate the primacy effect sometimes seen for new features. For example a new navigational system may be better, but initially show lower usability for existing users.

Repeat Visitors

A repeat visitor is a visit by a unique visitor whom visits more than once in a given time period. This, of course, is dependent upon the cookie deletion rate for tag-based solutions, multiple browser use, and the percentage of unique IPs experienced over the same time period. The numbers associated with this metric can be tricky. As stated above, it is important to consult the particular analytics solution definitions to adjust this definition for conformity.

Instances

While Omniture SiteCatalyst uses the term “instances” rather ambiguously, as a metric, it is a handy idea. Instances refer to the number of times an event occurs. It may be used to quantify searches on a site, or execution of some page behavior. As more sites begin to transition to server code which runs live-writable data tables (AJAX) or off page XML, this will, most likely, become a functional metric of consideration. In essence, it’s a crude quantified measurement of action that can be applied to a number of scenarios interchangeably. There are some things you just count.

Content Metrics – Measuring Each Component

Content metrics deal with specific functions of web pages in their contribution to the operations of the web site as an identifiable digital entity or media organism. Content has virtues based on function within a hierarchy of overlapping dimensions.

Virtues of Function: These content metrics are defined by their purpose within the structure of a website, used to supplement the primary goal.

Entry Pages: The page on a website where the visit originates. .

Landing Pages: Entry pages that are specifically designed to convert users for marketing campaigns.

Segue Pages: Pages that exist for the purpose of taking a user from a general informative state of gathering information into an actionable state. Segues may be sub-category pages or a topic cloud.

Action Pages: Pages that are meant to illicit a response from the user. Examples are product pages with an ‘Add to Cart’ action function or any blog page where the author invites users to comment. (Bloggers have so few valuable metrics by which to truly measure their success apart from commerce etc. that a major conversion metric for a blog might be number of comments per visitors.)

Fulfillment Pages: The primary function of fulfillment pages is the trade of information.

Content is evaluated and measured on a page by page basis. Each page is taken as a single entity for the purpose of its improvement, but should conform to the actionable ends that the entire site is designed to promote. As such, each page comes with a set of metrics that help to evaluate a subset of purposeful valuations.

Each page is potentially a landing page as well as a page within a path to the ultimate goal. This tension between *destination* and *path* creates the duality of page design. Optimization efforts, then, must prepare the page for the best results of each world. This encompasses principles of search engine readability and relevance, clear and visible navigational cues, as well as persuasive and engaging content.

Entries

Entries are literally that. They are the origination of a visit. This is more of a volume metric, However, as it is being used in making determinations for a single page of content, it is more applicably placed in content. Essentially it is a ‘*content building block*’ (WAA) term.

Single Access Visits

Like entries, single-access visits are more or less a building block volume term used to build out calculated metrics for content. A single-access visit is literally a bounce.

Bounce Rate (and Simple Engagement)

Mathematically expressed: Bounce Rate = [Single-Access Visits]/[Total Entries]

Bounce rate is an often talked about and many times overcomplicated metric. It is, quite simply, the percentage of people who arrive on a page and immediately leave without performing any action that shows engagement. This is actually a packaged metric in Google Analytics and a calculated metric in other solutions. It is an inherently negative metric.

For reporting purposes, consider using Simple Engagement. This would be the reciprocated percentile created by subtracting the Bounce Rate from the whole number. Bounce rate is a great metric for quickly looking at how immediately relevant or engaging a page is received. It can easily point to major deficiencies in the design or content of a page. It can also be used to measure the effectiveness of a new ad campaign.

As a primary consideration, an analyst should use the bounce metric for the purpose of measuring the page as a landing page. Bounce rate is valuable for keyword work as well. In terms of Search Engine Marketing, the ability to grow campaigns based on engaged traffic can mean actual measurement of the brand value of certain terms.

Revenue Per Visit(or)

Revenue/Number of Unique Visitors over a time or Revenue/Visits over a time

On a content basis in e-commerce, it is important to understand how each page contributes to the success of the site. The amount of revenue per visit, visitor or page view can be a very important metric to look at when optimizing a site.

Page Attrition

1-([Primary Objective] / [Immediately Precedent Proxy of Primary Objective])

Page Attrition is a reciprocated metric. It is similar to bounce rate in that it is (1) inherently a negatively connotative metric and (2) indicates an action that is undesirable. This metric indicates the percentage of people exposed who do not act in a positive way on a single page.

PathWeight and ProxyScoring

PathWeight is a metric which CableOrganizer.com invented for itself to identify the importance of each page, as a characterization, within the optimal path to conversion. For us, this changes and takes into account new facets of our quantifiable metrics. This is, essentially, an algorithm designed to produce an output based on inputs associated with each of the important components of a page that indicate its value in comparison to pages of the same tier in relation to the primary objective. When sorted by PathWeight, pages of equal characterization and hierarchy should be isolated together.

We find that this is an excellent Proxy Scoring metric as well. When running a multivariate test, we often have to create a means to indicate proxies to conversion in order to speed up testing times. When a page is undesirably far away from the primary objective in terms of hierarchy and characterization, choosing pages with a high PathWeight or ProxyScore can bring the virtual conversion up as an objective and cut testing time down to fractions of what it otherwise would have been.

Primary Content Consumption

$$PCC = ([Page\ Views] * ([Entries] / [Visits]) / [Total\ Page\ Views])$$

Our parents always told us that you never get a second chance to make a first impression. This metric is the percentage of each page as a portion of those aggregate first impressions. This is a percentile that helps sort pages as important based on the fact that they make up a certain number of the times where this is the first page that represents your site as an online entity. How important is this? If you consider every page as a possible spokesperson for your brand, it can be the single most important metric to sort everything else in under.

PathLoss¹

$$PL = ([Exits]-[Single\ Access]) / ([Page\ Views] - [Entries])$$

PathLoss exhibits the percentage of times that a page was seen within a visitor's navigation where the visit was terminated without the act of a bounce. More clearly put, it is the percentage of times where a visit ended during what appeared to be a potentially valuable visit. It might indicate attenuation, distraction, or the possibility of incomplete information.

Exit Rate (or Page Exit Ratio)

$$ER = \text{Exit Ratio} = [Exits] / [Page\ Views].$$

This is the percentage of times that a particular page acts as a means to exit the site. With the sole exception of this being the Thank You page for your shopping cart or other post-conversion closure, a high rate of exit points to the content as having properties which cultivate attrition. When you think of your exit rate, think of it like this: *This page has created a negative impression of the rest of my site; What can I do to fix this page so that the rest of my site does not suffer?*

By looking at a cross-section of your website through the metric of the Exit Ratio, you can quickly identify where problems in action might exist or language might be confusing or ambiguous.

Objectives

The ideas of optimization and analytics are to understand the processes and behaviors exhibited by the users in order to get a sense of how to build a site to present the appropriate stimuli to evoke the desired impulse. By building a system of 'checkpoints,' a web site becomes easier to build. The checkpoints ultimately build a path or pattern up to and following through to a primary goal. Working backward from that goal is the simplest means to understand where the checkpoints exist.

¹ PathLoss is a metric developed by Paul Holstein of CableOrganizer.com.

Understanding the Objectives

The objectives are the goals that your site exists to achieve. For some sites, this is sales or signups. For others, it might be to simply engage the audience in the viewing of content in the form of videos or reading a post on a blog. Whatever the case, you have goals. The number of times those goals are reached are a percentage of the number of opportunities that the user had to perform them. Objectives are made up of performance checkpoints and primary success metrics.

Ad Clicks

These are the primary goals of informational pages that seek to build a revenue model based on advertising. Collecting and analyzing this data can be difficult in that all the information has to come from divergent sources.

Goal Pages

If the primary objective of a web site is to provide information to the user for the purpose of information, then there are some pages that can do that more clearly than others. That objective may need to be a page that is set up solely for that purpose. It could be a link offsite, or to some other page. Be sure to properly tag the location of your goal to ensure that you can collect, aggregate and appropriately quantify it with relation to the volume metrics of your navigation cycles.

Comments

For the benevolent bloggers who seek to inform, an appropriate objective might be to see commentary as the primary goal.

Orders

Orders are the single most important objective in any online retailer's conversion metrics.

Signups

Signups include signing up to a newsletter, blog membership, and "coming soon" promotional ticklers. For example, Chumby.com had this wild alarm clock/Widget dish that creates a dashboard that is piped in from a WiFi connection. For months, you couldn't get the product, but you were able to sign up so that when they started selling you could 'Be the First in YOUR neighborhood with a Chumby' ...it worked. I signed up.

Cart Additions

Retailers view cart additions as a secondary metric. However, CA can be a valuable metric for the purpose of looking into bigger problems that might exist on the site. A persistent area of problems might be your shipping calculator. Your cart addition to orders ratio is a great metric get a handle on how that impacts your performance.

Conversion

$CV = (Objective/Opportunity)$

No matter what form it takes, conversion is essentially the number of times you reach a goal divided by the number of times where it was possible, or people who were exposed to the opportunity.

Measuring the Means

The means refers to the way in which a site visitor reached the objectives. Means are the previous sites, search engines, ad creative, and campaign metrics. These measure performance of

efforts in advertising and marketing, and encompass search marketing and targeted content. In multiple types of analyses these metrics can be used to make channels and functions accountable and to make alterations to strategies to increase the likelihood of success. Continuous 'rolling measurements' may be necessary to ensure that the performance improves as conditions of influence over these fields fluctuate.

CPC – Cost Per Click

$$CPC = (Clicks/Ad Spend)$$

Quite simply, this is the cost of each click on an ad creative or text ad. Search marketing bases this on a 'bid' price which is determined by whichever venue is used and the terms described in their user agreements. Banner and graphic advertisement can work on either a fixed per click, or bid system. Generally, this is a preferred method of measurement and calculation of costs over cost per 1000 impressions because it is more measurable, tangible and subjective than the CPM alternative.

Average Position

This refers to the position in which the paid text ad is located on a search engine results page. Because of the way which the search marketing algorithms work, there can be a significant level of distribution throughout top ranks in search marketing. While the crawling and updating of organic ranks also uses this metric, paid search gets the benefit of being able to manipulate directly by placing bids to advance high value terms and virtually eliminate terms with less than optimal returns.

CTR- Click-Through-Rate

$$CTR = (Clicks)/(Impressions)$$

This is the rate that users click on a displayed ad, starting a visit. Click-through is useful as a metric for multivariate tests of text or alternative creative advertisements.

ROAS – Return on Ad Spend

$$ROAS = (Revenue/Cost of Means)$$

Return on Ad Spend is a simple metric applicable to almost all marketing efforts. Primarily, it is useful as a gauge or estimate of returned value for a keyword, ad group, campaign or search engine.

ROI – Return on Investment

$$ROI = (Yield -(Resources/COGS/Ad Costs))$$

Return on investment is a more complete version of the ROAS metric. Where ROAS only calculates return based on the keyword or creative costs by whichever incremental they are reported, return on investment is valuable in its ability to additionally calculate based on resource consumption, cost of goods sold, holding costs etc. A solid program to maximize campaign value should eventually be able to boil this out of your analytics.

Omniure actually has the ability to add what is called a VISTA rule which corroborates cost of goods sold to product SKU or other shopping cart solution feature (product id or whatever your cart allows). Being able to focus on those keywords that yield highest ROI is much more valuable than potentially problematic, and incomplete metrics like ROAS.

Conclusion, Part I

Generally, every website is designed with some purpose in mind. There is some goal by which the virtue of the site itself exists. For retailers, the obvious goals might be to sell, inform, interact, market and provide a venue for users and customers to build a relationship. For other sites, the goals might not be so clearly defined. Sometimes initial goals of a site were very different from what the mature goals have become. It is for reasons like these that the metrics that define success of a given site may be difficult to corral, as well as be constantly evolving.

Interestingly, many websites measure success in the same way that they measure business. Often considerations are made for things like traffic and return on an investment in online marketing etc. These are all great things to know about and to measure; however, they are more about measuring results of efforts and do little to help a site do more than react to market forces. This means that, without looking deeper, a site and, in the case of an eCommerce retailer, a business, will ultimately suffer at the hands of the forces that influence the ebb and flow of market dynamics. For a more inductive approach, a person seeking to improve a website needs to think about how to effect changes that act as levers for the metrics above. This way, it's less about reporting and more about a proactive and immersive approach.

A more effective means to understand the value of a page, and a site, is to create a system of valuation for each page within the context of its contribution to the success of the site. After all, site optimization, is ultimately the cumulative effect of page optimization and site wide adoption of best practices.