MEDIA METRICS MATRIX

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This document outlines a reporting model for media sites. This model allows for both horizontal comparisons (at a given level) and a vertical drill-down (or roll up). The metrics covered here are not the only metrics one can get or that are useful. Rather we are concerned with monitoring; monitoring the effect of changes made to the site or user behaviors over time. It focuses on the primary metrics used to report performance and improvement and the relationship between those metrics.

The document is concerned with "causes" (etiology) rather than the predictive use of metrics. It does not cover the insights into customer intent that can be inferred from the measured behaviors. That is beyond the scope of this overview. In short, while there are many intelligent and outside-the-box considerations, this is about the box.

I am tempted to say that this is a typical model. But there is substantial variation in media sites and opinions about how to track them. I don't know that any model can be called typical. So this paper is about one model out of many possible models.

1. Metrics Purpose

One can generalize 5 purposes for which various metrics are used:

1. <u>Business optimization</u> – Business Optimization is concerned with the economic success of the company and the metrics are highly correlated to business revenue or strategic goals.
2. <u>Feature optimization</u> – Feature optimization is concerned with the success of a specific product or application. The metrics are focused on customer interest in the product and its parts.
3. <u>Campaign optimization</u> – Campaign optimization is concerned with maximizing the effectiveness of a discrete effort over some period of time. These are the marketing measures used to track reach, acquisition, etc. SEO efforts fit into this category.
4. <u>Process optimization (usability)</u> – Process optimization focuses on user interaction with the product. The metrics are used to improve the ability to use the tool and the effectiveness of the user interface.
5. <u>Quality assurance</u> – Used to monitor the operational conditions of the site. For example, was there a sudden drop in traffic due to server failure or an increase in 404 errors?

These are, in effect, different types of success measures that answer different kinds of success questions. In deciding on the success measures for a project, one must be aware

of what type of success is being considered. One can have a product of significant interest to users but has poor usability or a product of great interest that contributes little value to the business. It can be confusing in that the same metrics are often used to measure different types of success. Those measures will have a different meaning depending on which question is asked. (Note that for the purposes of this document I am focusing on the internal metrics of a media site rather than metrics provided to advertisers. While the goals of a media site and its advertisers are symbiotic, they are different.)

The type of success measure also tends to map to the responsibility of the "metric consumer". A Producer responsible for links might tend to look at process and campaign metrics while a product Vice President might tend to look more at business and feature metrics.

2. Level

The selected metrics should be tracked consistently at various levels of the site. This is the core requirement of the model. This allows management to monitor overall performance then drill down to the actionable detail about what is affecting those higher level numbers; a vertical segmentation. It also allows a horizontal comparison between pages, page groups, and applications at the same level. The latter provides insight into relative value. Those levels are:

1. Site
2. Page Group
3. Page
4. Module
5. Link

Note that these are all page segmentations rather than audience segmentations. Examples of page groups are subject, page type (form, article, news, etc.), site area, and tool or application. Modules are collections of related links rather like a page group is a collection of related pages. In general, the more granular the level of tracking, the more the information tends to be tactical and actionable. Changes in higher level tracking are investigated by segmenting to a more granular level to see what components changed.

Again, interest in a metric level tends to map to the metric consumer's level of organizational responsibility.

3. Metrics

The metrics listed below are standard metrics used to monitor a media site. The metrics are used in combination to understand site activity and "contribution" (and by inference behavior and intent).

- PVC (Consumption After/Visits).
- Repeat use. (Visits/UU)
- Page Group Contribution. (PV/Site Visit).
- Page Consumption (PV/Visit).
- CTR (Clicks/Impressions).

These are not the only metrics available. They are chosen to provide an integrated vertical view; from a high level overview to granular link level information.

1. **Page Velocity Consumption (PVC).**
   1.1. This is a primary engagement measure of 'driver value'. PVC measures the average pages consumed in a visit after seeing a particular module, page or page group. For media sites that get paid by the page view or sponsored page view, it is a business optimization metric reflective of revenue.
   1.2. PVC is calculated by Consumption / Visits

2. **Repeat use.**
   2.1. On both a site and product level, this metric provides insight into the attractiveness of the site/product and the ability to deliver traffic and revenue over time.
   2.2. Repeat use is calculated by Visits / Unique Users.

3. **Page Group Contribution (PGC).**
   3.1. PGC is similar to the regular Page Consumption metric below but measures overall contribution to the site. It's a way to view the relative contribution and performance for different site sections and applications.
   3.2. PGC is calculated by Page Views / Site Visits.

4. **Page Consumption.**
   4.1. This engagement metric will provide information about which of the changes produced the most effect within the application or page collection. It is similar to the PVC metric above but measures the page consumption <u>within</u> the tool or page group. As such, it tends to be a measure of product success rather than business success. At the site level, it can be a business success metric.
   4.2. Page consumption is calculated by Page Views / Visits.

5. **Page Click Though Rate (CTR).**
   5.1. Page CTR measures the ability of the page to move the user to the next step and is an important tactical measure. It provides a holistic view of the page and the effect of the change on the page as a whole. Since any one change on a page will be impacted by and impact upon the other elements on the page, this metric provides the net effect of the change.
   5.2. Page CTR is calculated by Page Clicks / Page Views.
   5.3. A corollary measure that is sometimes used is the Click Interaction Rate. This is the Total Clicks / Visits. This is sometimes a more revealing engagement metric for Flash and Ajax applications where there may be limited page views.

6. **Module/Link CTR.**
   6.1.   This provides a basic metric for the specific module, link or other single element being tested. It is a measure of usability or persuasion (for copy) by looking at whether the link moved the user to the next step.
   6.2.   In addition, this metric is used to look at relative link interaction. In many cases, a change will move people from one action to another on the page rather than improve CTR overall. This information will provide insight into the detail of how the change modified the behavior within the page.

4. Metrics Matrix

This section lays out in grid form the metrics and the levels outlined above for easier reference. It also provides an overview of how the metrics are used for monitoring. Each level suggests a report or reports for the corresponding level of organizational responsibility.

The grid is laid out by level with the metrics listed for each level. The metrics in the lighter font indicate that those specific metrics do not apply at the given level, but are reflected in other metrics as noted. The Use column provides general information to help answer two questions about a given metric:
- How do I use it?
- What can I learn from it?

Level	Metric	Use
Site		
	PVC	At the site level, PVC is reflected in Page Consumption (PV/Visit).
	Repeat Use	- Monitor over time. Investigate changes using the Page Group "level" segmentation. - Investigate changes by looking at both the Visit and MUU components. - Use as a KPI to monitor the site's overall ability to encourage or discourage use over time. - Use as a baseline measure for the relative ability of site components to encourage repeat use. - Use to monitor the success of cumulative changes to the site over time.
	Page Group Contribution	At the site level, this metric is the same as Page Consumption.
	Page Consumption	Monitor over time. Investigate changes using the Page Group "level" segmentation.

Level	Metric	Use
		• Investigate changes by looking at both the Page View and Visit components. ▪ Use as a KPI to monitor overall site engagement. ▪ Use to monitor the success of cumulative changes to the site.
	Page CTR	At the site level, this is reflected in the Page Consumption metrics.
	Module CTR	At the site level, this is reflected in the Page Consumption metrics.
	Link CTR	At the site level, this is reflected in the Page Consumption metrics.
Page Group / Application		
	PVC	• Compare to the site's overall Page Consumption • Compare to other page groups to evaluate relative contribution. • Monitor the trend over time for the page group. Investigate changes to the trend. ▪ Use to evaluate the general business effectiveness of the Page Group / Application. ▪ Use to evaluate the downstream impact of changes made to the Application or Page Group. Did it go up or down after the change? ▪ Use to investigate changes observed in the Page Consumption metric as the Site level.
	Repeat Use	• Compare to the site average of repeat use. • Compare to other Page Groups / Applications. • Monitor the trend over time for a given Page Group / Application. Investigate changes to the trend. ▪ Use to evaluate the success of changes to the Page Group / Application over time. Was the change significant enough to affect performance over time? ▪ Use to investigate changes observed in this metric at the Site level.
	Page Group Contribution	• Compare to other Applications/Page Groups. • Monitor the relative trend over time. ▪ Use to evaluate the relative success of

Level	Metric	Use
		changes to the Page Group / Application. Did the contribution to the site overall improve or not? Were users shifted from lower value activity to higher value activity? ▪ Use to investigate changes observed in the Page Consumption metric at the Site level.
	Page Consumption	• Compare to other Page Groups / Applications. • Monitor the trend over time for a given Page Group / Application. Investigate changes to the trend. ▪ Use to understand the relative engagement value of various Page Groups or Applications. ▪ Use to evaluate the relative success of changes to the Page Group / Application. Did it go up or down after the change? ▪ Use to investigate changes observed in this metric at the Site level.
	Page CTR	At the page group level, this is reflected in Page Consumption.
	Module CTR	At the page group level, this is reflected in Page Consumption.
	Link CTR	At the page group level, this is reflected in Page Consumption.
Page		
	PVC	• For a given page, compare to the average Page Group PVC for Groups of which this page is a part. • Compare to other pages within the group. ▪ Use to evaluate the contribution of a given page to business success. ▪ Use to evaluate the downstream impact of changes made to the page. Did it go up or down after the change? ▪ Use to investigate changes observed in this metric at the Page Group level.
	Repeat Use	• Compare to other pages in the group. • Monitor for selected pages over time and investigate the changes. ▪ Use to evaluate the success of changes to the page over time. Was the change significant enough to affect performance over time? ▪ Use to investigate changes observed in this

Level	Metric	Use
		metric at the Page Group level.
	Page Group Contribution	This is provided at the Page Group and Site levels. It is of limited use at the Page level.
	Page Consumption	This is provided at the Page Group and Site levels. It is of limited use at the Page level.
	Page CTR	• Compare to other pages in the page's Page Group • Monitor the page over time and investigate the changes. ▪ Use to evaluate the general ability of the content and links to drive to the next page. ▪ Use to evaluate the success of changes to content or layout of the page. Did the change cannibalize other page elements or was there a net gain? ▪ Use to investigate changes in the Page Group level Page Consumption metric.
	Module CTR	At the page level, this is reflected in the Page CTR metric.
	Link CTR	At the page level, this is reflected in the Page CTR metric.
Module		
	PVC	• Compare to other modules on the site • Compare to other modules on a given page. ▪ Use to evaluate the general participation of a module in a successful visit. Is it a successful driver in visits overall? ▪ Use to evaluate the success of changes. Did it go up or down after the change? ▪ Use to investigate changes observed in this metric at the Page level.
	Repeat Use	This is reflected in the Page, Page Group and Site levels. It is not useful at the module level.
	Page Group Contribution	This is reflected in the Page Group level. It is a page metric and not applicable at the module level.
	Page Consumption	This is reflected in the Page Group and Site levels. It is a page metric and not applicable at the module level.
	Page CTR	This is provided at the Page level. It is a page metric and not applicable at the module level.
	Module CTR	• Compare to other modules on the same page • Compare to all modules to determine the most effective drivers.

Level	Metric	Use
		■ Use to evaluate the ability of a given module (link collection) to produce a next step conversion. ■ Use to evaluate the success of changes to the module. ■ Use to investigate changes observed in the Page level Page CTR.
	Link CTR	At the module level, this is reflected in the Module CTR metric.
Link		
	PVC	• Compare to the PVC of other links in the module when investigating the activity of that module. ■ Use to evaluate the success of changes. Did it go up or down after the change? ■ Use to investigate changes observed in the Module level PVC.
	Repeat Use	This is provided at the Page, Page Group and Site levels. It is of limited use at the Page level.
	Page Group Contribution	This is provided at the Page Group and Site levels. It is a page metric and not applicable at the link level.
	Page Consumption	This is provided at the Page, Page Group and Site levels. It is a page metric and not applicable at the link level.
	Page CTR	This is provided at the Page level. It is a page metric and not applicable at the link level.
	Module CTR	This is provided at the Module level.
	Link CTR	• Compare to the other links in the module when investigating the activity of that module. ■ Use to evaluate the ability of a given link to produce a next step conversion. ■ Use to evaluate changes to the link copy or destination. Did it go up or down when changed? ■ Use to investigate changes observed in the Module level Module CTR.

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