

New Analytical Approaches for Improving Web Site Strategy™

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*Our basic services include:
usability testing, Web
engagement measurement,
search engine optimization
and social media
optimization.*

Digital or Web marketing has become more and more important in many companies' portfolio of marketing tools. Web sites provide the capability for online responses to marketing offers. They also offer a unique and effective forum for potential customers to provide information about themselves when they "register" an account for shopping and purchases or when they post their views on blogs and forums. Most importantly, this information creates opportunities for companies to create targeted, more effective marketing programs based on specific customer types and behaviors to drive improved sales and repeat business. The phrase "digital marketing" refers not only to Web site exposure and responses but to e-mail marketing, placement of banner ads on partner's Web sites, and management and use of all kinds of digital activity and data.

Basic and Advanced Web Analytics

Savitz offers a set of approaches, both basic and advanced, for assessing and improving the performance of our clients' digital marketing activities, which include our proprietary Advanced Digital Analytics System™ (ADAS).

Basic Services:

- ▶ **Usability Testing** – Our team of qualitative research experts possess extensive usability testing experience using customized equipment that is available in most of our 40+ offices worldwide.
- ▶ **Web Engagement Measurement** – Our experienced quantitative Web research specialists have in-depth experience in determining the real effects associated with page views, site visits by day-part, click-through and conversions. Not only do we provide the counts through easy-to-read tables, graphics and heat maps, we provide the insights needed to increase traffic and sales.
- ▶ **Search Engine Optimization** – Keywords purchased from search engines bring up, by prior arrangement, the client's business first, or among the first, on the search page. We offer an extensive platform of research-based SEO programs to optimize the purchase and placement of keywords with search engines such as Google. This helps improve page rank and de-prioritize negative listings.
- ▶ **Social Media Optimization** – We can analyze positive and eliminate negative publicity from various social media and help develop the most appropriate strategies for managing these commentary streams.

Advanced Services

At Savitz, we give far beyond these basic approaches to intelligent Web marketing. Indeed, our proprietary Advanced Digital Analytic System™ (ADAS) takes Web marketing data to the next level by providing tactical and strategic insights not available elsewhere.

Moving Beyond Basic Web Data and Metrics to Improve Outcomes

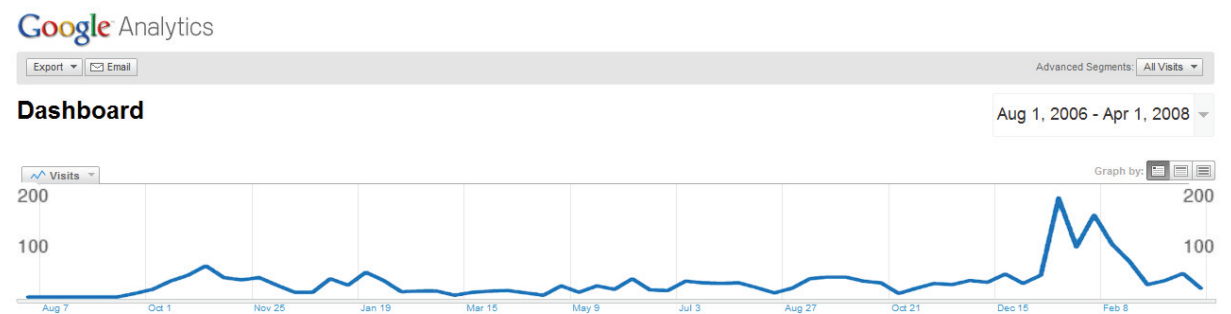
Page views and visits alone are not enough to measure Web site engagement. They are descriptive rather than prescriptive and simply offer no real guidance as to future direction. For example, a heat map can show the frequency of visits to pages or sites but that may not mean that the visitors become customers or even new leads.

Indeed, the research industry has not yet offered a set of analytics that uncover important drivers of responses and other vital outcomes. Current “Web analytics” focus on descriptive counts of raw data rather than the more strategic insights that must be used to develop any truly effective digital marketing strategy.

Instead of providing insights, Web research companies today simply deliver more data. More data is promising and can be good, of course. A program such as Google Analytics, for example, potentially produces a lot of useful data about how well a Web site is doing, as shown below. However, there are important differences between raw data and the tactical and strategic insights one can gain from that data.

At Savitz, we take the available Web data to the next level through a series of advanced statistical analyses, testing, forecasting and simulation. In a new and uniquely valuable sense, we employ a deeper and more comprehensive optimization of Web strategy than that offered by our competitors. Several examples are provided below.

Case Study 1: Web Site Design in Three Dimensions



Source: Google Analytics official Web site

A mid-size e-retailer has decided to upgrade their existing Web site to increase the number of new customer accounts by getting site visitors to complete a form that allows them to shop and buy products on the site. Since site maintenance requires selling some of the home page space to banner ad partners, they would also like to determine which of three

But, our Advance Digital Analytics System™ (ADAS) takes Web marketing to the next level.

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advertisers they should target for sales efforts. In addition, the client would like to know which of three possible color schemes is most compelling and what would be the optimal placement of a new Site Map link.

To make the best decisions the Web site designers require feedback about three main factors. Let's say that each of the factors has three alternative approaches to choose from:

Web Site Factors		
Color Scheme	Site Map Placement	Banner Ad Partners
Green - Blue (G)	Upper Left (U)	Company A (A)
Yellow - Brown (Y)	Upper Right (R)	Company B (B)
White - Black (W)	Lower Left (L)	Company C (C)

With three factors and three levels there are actually $3 \times 3 \times 3 = 27$ different Web sites to test, an expensive and time-consuming endeavor, to say the least. Companies that test Web sites have developed an approach, A-B testing, which narrows down the number of test sites to be tested. Let's review how the procedure might work using our example.

First, the designer picks the order in which the factors are to be tested, then the order in which different levels of each factor are to be tested. He also selects the time to run each test case and the measure of effectiveness. Let's assume the designer runs each test case for one week. The measure of effectiveness is the number of (new accounts) forms completed and the order for testing of factors and levels are:

Color: green - blue (G), yellow - brown (Y), white - black (W)
 Placement: Upper left (U), Lower left (L), Upper right (R)
 Partner: Company A (A), Company B (B), Company C (C)

Using this method it will take seven weeks to complete the entire test, including three weeks just to determine the best Color scheme. The first test Web site would be launched for one week: Color: G, Placement: U and Partner: A. The second test Web site would be launched the next week: Color Y, Placement: U and Partner A. The winning color, say Y, is then tested against the third possible Color W. Let's say W wins over Y. Then W will be used in all subsequent test runs. The test of the three Web sites to determine the best Color scheme would take three weeks.

Here we unseat basic A-B testing with more accurate and more advanced conjoint analysis.

The process described above would be repeated for two more weeks to determine the best Placement and for another two weeks to determine the best Partner. The entire process would take seven weeks as shown below.

Week	Web site			New accounts per day	Decision
	Color	Placement	Partner		
1	G	U	A	43	
2	Y	U	A	49	Color Y > G
3	W	U	A	53	Color W > Y
4	W	L	A	71	With color W, Placement L > U
5	W	R	A	57	With color W, Placement L > R
6	W	R	B	79	With color W and Placement L Company B > A
7	W	R	C	67	With color W and Placement L Company B > C

What are the limitations of this approach?

- ▶ **First of all**, it can lead to the wrong conclusions because of the order in which variables are tested*.
- ▶ **Second**, it takes a long time to complete the test.
- ▶ **Third**, because it takes a long time to complete the entire test and each test Web site is only shown for one week, the results can be skewed by short term competitive actions and other external variables such as holiday periods or weather.

Indeed A-B testing is slow and can be misleading.

At Savitz we use a different approach which avoids the pitfalls of sequential A-B testing. We select a specific subset of the 27 Web sites to test, which is balanced properly using techniques taken from conjoint or trade-off analysis. Instead of letting the winner on one round of tests be used exclusively on the other rounds, we select the Web sites to be tested in advance. In our example, these would be as follows:

Test Site – 9 Sites		
Color	Placement	Partner
White - Black	Upper Left	Company A
Yellow - Brown	Lower Left	Company C
Green - Blue	Lower Left	Company C
White - Black	Upper Right	Company B
White - Black	Lower Left	Company C
Yellow - Brown	Upper Right	Company B
Yellow - Brown	Upper Left	Company A
Green - Blue	Upper Right	Company B
Green - Blue	Upper Left	Company A

*Suppose we are testing a site for a mouthwash product involving: three flavors - orange, cinnamon and mint; three colors - orange, red and green; and three prices. If we start with green as the color, what conclusion is likely for the flavor? Mint, of course. If we started with red as the color, what conclusion is likely for the flavor? Cinnamon, more than likely. Clearly the order of the variables and levels tested can affect the outcome.

In addition, rather than testing these nine Web sites sequentially, when a prospect clicks on the client’s Web site, one of the nine test sites would be selected at random and shown to the visitor. Separate counts of clicks and new customers would be maintained for each of the sites. By testing all sets “simultaneously,” checks could be made to determine if there is a winner along the way before the full nine weeks has elapsed. If there are competitive actions or other external factors during part of the test-week period, all test sites would be affected equally because all nine sites are tested “simultaneously”. By using trade- off analysis techniques for studying the data we can derive the relative importance of each factor and the incremental new accounts visitors open as a result of each level of each factor. We might then derive results that look as follows:

New Leads by Factor and Level			
	Factor	New Accounts/Day	Relative Importance
Color Scheme			16%
	Green - Blue	11	
	Yellow - Brown	13	
	White - Black	15	
Site Map Placement			55%
	Upper Left	27	
	Upper Right	39	
	Lower Left	25	
Color			29%
	Company A	22	
	Company B	29	
	Company C	23	

The conclusion is the same as that found using the sequential A-B testing method but the test can be completed within four weeks and it avoids external bias that can skew the results. The leading Color combination is again White-Black with the Site Map placed in the Upper Right hand corner and the Partner Company B. The Site Map Placement is three times as important as the Color and nearly twice that of the Partner. Therefore, it is unlikely that different Color schemes or Partners can add much to the mix. However, had the Color scheme proven to be the most important attribute, it might benefit the client to test other Color combinations. This not being the case, the testing can be concluded with a winning combination identified.

Case Study 2: Page View Predictors

In a recent Web article for ReadWriteWeb.com, Mohammed Saleem makes the point that many companies, including Web measurement giants such as Nielsen NetRatings, are moving away from counts of page views as a measure of site interest. This makes sense since a page view, in itself, can be very different from becoming a customer or even being engaged or expressing interest in the client’s products.

The result is a better, more compelling Web site.

Clearly Web analytical tools are needed to bridge the gap between page views and sales. The case study below illustrates one way in which our Advanced Digital Analytics System™ (ADAS) can accomplish this.

The U.S. Navy uses selected Web sites to attract young men and women as potential recruits. On the sites is a form to be completed by someone who is interested in obtaining more information about the Navy as a career and other details, such as training, education and benefits. The completed form goes to Navy recruiters with offices near the potential recruits and is used as a lead for recruit development.

As you would expect, the number of potential pages on a military service site like this one is enormous. Testimonials, photos of ships, armament, ports and other content could easily overwhelm the site visitor who may be interested in getting the information he or she needs about signing up. The question becomes what particular pages are the most valuable for this purpose?

As shown in the hypothetical example below, six major types of pages can be viewed at www.navy.com. In one week, a large number of visitors view the site and its pages but only about three percent become leads for the recruiters. How can this percentage be increased?

One way is to isolate those pages that make a unique contribution to the visitor's decision to complete a lead form. To do this, Savitz first converts every visit/visitor* into a row of zeros and ones. A zero means "page not viewed," while a one means "page viewed":

One-Week Timeline	Educational Opportunities	Boot Camp Training	Navy Life – Careers	Ships & Equipment	Special Forces	Testimonials	Net Total
Page views	10,563	23,454	15,872	45,921	18,266	9,458	61,569
						Visitors	24,145
						Lead Forms	901

This produces a large number of rows for analysis. In addition, at the point at which the visitor completes a lead form on a given visit, then the tracking of pages is stopped for that visitor**.

One Visitor	Educational Opportunities	Boot Camp Training	Navy Life – Careers	Ships & Equipment	Special Forces	Testimonials	Net Total
#491	0	1	1	1	0	0	3
						Visitors	1
						Lead Forms	0

Through a number of different statistical analyses, including multinomial logit, ridge and stepwise regression, TURF and others, a model is generated that ties pages viewed to formation of leads (the exact sequence of analytic tools is proprietary to Savitz and ADAS®).

* On federal government sites, privacy constraints preclude cookies and tagging that would otherwise track a visitor on repeat visits. Thus, visits and visitors are, for practical purposes, indistinguishable.

** In other words, the pages preceding the lead generation can be thought of as possible "causes" of that lead.

By themselves, page views are not necessarily good measures of Web site effectiveness.

The results may look something like this:

Relative Contribution to Lead Generation	
Educational Opportunities	20%
Boot Camp Training	20%
Navy Life – Careers	35%
Ships & Equipment	15%
Special Forces	0%
Testimonials	10%
Total	100%

This gives the site design strategists information about which pages to emphasize, those that may need more content and which pages could be removed simply to clarify and focus the visitor’s attention on those pages that do drive lead form completion.

Summary

Savitz offers basic Web site research capabilities that include:

- ▶ **Usability Testing** across the U.S. at our offices and online;
- ▶ **Web Engagement Measurement** that provides both data and insights; and
- ▶ **Search Engine and Social Media Optimization** that helps improve page rank, reduce or eliminate negative listings and supports the development of superior strategies.

In addition, Savitz’s Advanced Digital Analytics System® offers a range of advanced tools that include multivariate statistical analysis and strategic interpretive capabilities. We draw upon our considerable depth of experience in testing Web strategy effectiveness and the return on investments in Web marketing for our clients, which include:

- ▶ **Predictive Modeling** of lead and sales conversion based on Web site design, pages viewed and functionalities engaged by the user, such as completion of forms and a range of other variables;
- ▶ **Assessment of Web page structure** and the effect of structural constraints on important outcomes, such as how often a key sequence of click-throughs is elicited from the visitor;
- ▶ **Broader market analysis**, including competitive intelligence gathering and comparison of the competitive strengths and weaknesses of a client’s Web sites;
- ▶ **Customer acquisition, retention and churn modeling**, including profiling on key characteristics of loyal customers;
- ▶ **Comprehensive combinations** of the client’s database information with Web usage by customer and the relationships between customer value and Web site effectiveness;

Our Advanced Digital Analytical System™ can be used to convert page views into what really counts - SALES!



Bottom-line research solutions to your marketing problems.

- ▶ **Statistical analysis** of geographically coded Web content to help evaluate the effectiveness of targeting customers at the client's Web site; and
- ▶ **E-mail marketing models** that utilize collaborative filtering capabilities similar to those of the larger e-retailers, such as Amazon.com.

Savitz Research Vice President, Chief Analytics Officer

Dr. Mike Morgan, an internationally recognized marketing research scientist, serves as director of basic and advanced analytics at Savitz. His talents in applying advanced analytics have enhanced the digital marketing capabilities of the U.S. Marine Corps, FEMA, HSBC, Johnson and Johnson, United Health Group and other clients. A former professor at Cornell University, Mike has also held leadership positions as Vice President, Chief Analytics Officer at Yankelovich and Vice President, Marketing Science at M/A/R/C[®] Research.

If you are looking for ways to increase the return on your Web marketing investment, contact the Savitz Research Companies. Our team of experts provide much more than basic data updates by conducting highly sophisticated analytics that give our clients a distinctive competitive edge.

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and advanced digital
analytics at Savitz.*

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