OMS: The Online Marketing Simulation, A Complement To Your Web Analytics Toolset

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Web Analytics: A Blessing!

What would we do if we didn't have Web Analytics software applications to help guide our decisions?

As a small business owner, I spend considerable time reviewing the four Web Analytics packages that I use … SiteMeter, Google Analytics, TweetEffect, and Weblog Parser. Combined, these tools give me real-time and static views of my website, my blog, and my Twitter presence.

In fact, I feel like I am missing out on something if I don't check my statistics on at least an hourly basis. What would I ever do if I didn't know that, last hour, seventeen readers visited my blog because of my eleventh tweet of the day?

The combination of Web Analytics and Online Marketing yield delightful results! Combined with multivariate testing, there aren't many better ways to spend a business day for the Web Analytics professional!

And Yet, Something Is Missing

Let's compare Web Analytics with weather, for a moment.

Web Analytics is very similar to "current conditions". We can go online, we can watch television, or we can review our own weather station. Instantly, we know the temperature, relative humidity, wind speed and direction, cloud cover, and precipitation.

In other words, we know what is happening now, and we know what happened in the past.

Now let me ask you a question: How often do you make decisions based on what the weather conditions are right now, or based on what happened earlier in the day, or based on what happened yesterday?

Most of the time, we want to know "what is going to happen next". We make decisions based on what the weather forecast predicts will happen.

We Care More About Weather Forecasts Than We Care About Current Conditions

It's a beautiful Wednesday afternoon. The skies are cloudless, with the sun reflecting off the pond that is outside your office window. Temperatures are very comfortable, normal for a summer afternoon. There isn't a hint of humidity, and a light breeze suggests that conditions are nearly perfect!

Maybe this weather will hold. Maybe this Saturday, you should take your family out for a wonderful picnic at a local park.

If you want to take your family out for a picnic lunch, which piece of information would you consult?

- Current Weather Conditions.

- The Five Day Forecast provided by an expert meteorologist.

We Make Decisions Based On Forecasts

Whether we are planning a weekend picnic, or we are thinking about moving our retirement money from one fund to another fund, forecasts strongly influence our decision-making process.

Most forecasts have some level of inaccuracy. We love to badger the meteorologist, we'll say that "they're always wrong!" But the fact of the matter is that weather forecasting is reasonably accurate, and we rely upon this level of accuracy when making decisions.

Now let's take a moment to think about e-commerce.

How often have you used your Web Analytics software package to create a five year forecast of the sales trajectory of your business? In other words, how often have your software providers or business consultants given you the tools necessary to see what will happen in the future, if you make decisions today based on Web Analytics KPIs/metrics?

Introducing OMS, The Online Marketing Simulation

We're going to talk about an extension of Web Analytics, something that I call "OMS", or, the "Online Marketing Simulation".

For some in the Web Analytics community, this concept may seem odd. After all, you're generally happy with the tools that you've used, and you can answer most of the questions you want to answer.

In fact, many in the Web Analytics community might consider the Online Marketing Simulation to be an altogether different animal, something that should not consume the typical efforts of analyzing KPIs, managing multivariate tests, and optimizing website performance.

I am proposing an extension to the role of the Web Analyst. I am suggesting that the Web Analyst is capable of doing much more, is capable of explaining not only '*what happened*', but '*what is likely to happen*'. It is in this realm that the CEO becomes interested in Web Analytics.

Why Do I Need To Learn About The OMS?

Let's consider a recent interaction I had with Zappos, the online shoe company.

On a Monday evening, I found a dozen pair of tennis shoes I'd consider purchasing. I copied thumbnails of each image in an e-mail message, and sent the message to my wife. I did not put any of the items in my shopping cart.

On Tuesday, my wife indicated the pair of shoes she liked best.

On Wednesday morning, I visited the website, and purchased the pair of shoes my wife liked best.

In my case, I visited the website two times during a three day period of time. My first visit did not result in a purchase. My second visit did result in a conversion.

Conversions Aren't Always What They Seem

From a customer standpoint, I was completely happy with my purchase experience at Zappos. It was my intention to visit the website twice, completing my order on the second visit.

From a Web Analytics standpoint, my visits yielded mixed results. Depending upon how a Web Analytics software tool is configured, my experience can be measured as a failure and then a success, or it can be measured as a success.

In other words, Web Analytics software tools can illustrate outcomes that do not accurately reflect the customer experience.

Even more important, many Web Analytics software tools are unable to ascertain what I am likely to do next. Given my experience, am I likely to become a loyal customer, or was this experience a 'one and out' experience, where I am not likely to ever visit Zappos again?

A New Way Of Thinking About Time

Instead of thinking about how traffic converts, we re-think our concept of conversion.

The Online Marketing Simulation categorizes customer behavior into two time windows.

First, we categorize how customers behave during a "pre" period of time. Let's assume that this is a one-year period of time (I know, this is a different concept if you're used to analyzing conversions over a small window of time, like a session or a day).

Next, we categorize how customers behave during a "post" period of time. Let's also assume that this is a one-year period of time.

In e-commerce, one-year timeframes work well. In other applications, like Social Media, the timeframes might represent one day, one week, or one month.

Customer Status Changes, From One Year To Another

Let's imagine a very simple example.

In 2007, a customer purchases from your business.

In 2008, this customer can do one of two things:

- The customer purchases again.

- The customer does not purchase again.

This is a simple example of the Online Marketing Simulation. The customer moves from one segment in 2007 to one of two possible segments in 2008.

Notice that in this simple example, only one of the two segments in 2008 is associated with a purchase.

What might happen in 2009?

In 2009, There Are Four Possible Segments

In 2009, two segments become four segments:

- Customers who purchased in 2007 and 2008:

    - Some purchase in 2009.

    - Some do not purchase in 2009.

- Customers who purchased in 2007, did not purchase in 2008:

    - Some purchase in 2009.

    - Some do not purchase in 2009.

Customers who purchased in 2007 now belong to one of four unique segments in 2009 --- and of the four unique segments, only two purchased during 2009.

This process can be extended for 2010.

Future Segments Continue To Expand

Using this logic, we expand the number of segments over time.

- Begin with 1 segment in 2007.

- This yields 2 segments in 2008.

- We then have 4 segments in 2009.

- And 8 segments in 2010.

- Yielding 16 segments in 2011.

- With 32 segments in 2012.

By simulating how a customer will evolve over time, we can obtain future sales estimates.

Now, consider what might happen if, instead of having two outcomes, we have five different outcomes per year?

Customer Migration Across 5 Possible Segments, 5 Years
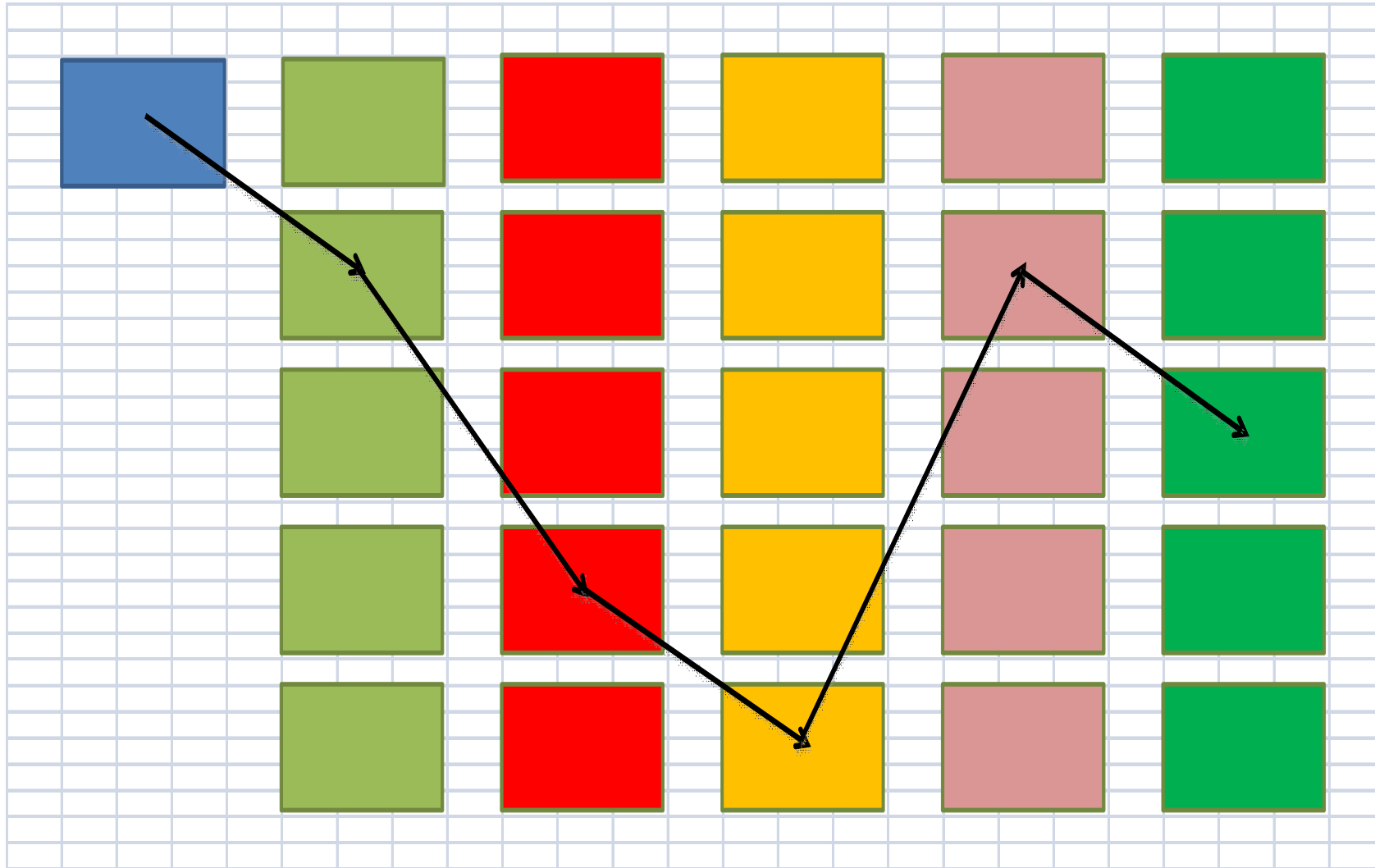
Our Businesses Are More Complex Than Just 5 Segments

We don't manage businesses where customers simply purchase or choose not to purchase.

Customers exhibit complex behavior. During the course of a year, a customer can visit your website multiple times, she can look at multiple products, she can place items in her shopping cart, she can abandon her shopping cart --- multiple times! She can purchase from any merchandise division, she can purchase from any channel (pay-per-click, e-mail, affiliates, banners, offline).

In other words, the customer can take any one of a nearly infinite number of paths in one year.

And then, the customer can once again take a nearly infinite number of paths in year two.

So we have to make some trade-offs. We have to reduce an infinite number of paths to a finite number of paths!

This can be done!

Customers Can Be "Graded"

For decades, direct marketers have been grading customers, based on future potential. This is a slightly different concept of the segmentation concept popular in Web Analytics applications.

At a simple level, we segment, we "predict" how a customer will perform next year, based on prior performance. If a customer spent $1,000 last year, then the customer will spend $400 next year --- or if a customer spent $500 last year, then the customer will spend $250 next year. We use customer history to build these relationships.

I personally like using Logistic Regression to predict response, and Ordinary Least Squares Regression to predict spending levels. I multiply these equations together to yield a prediction.

With the prediction, I segment customers into "grades" … either five or ten or twenty different grades, ranking customers from best to worst.

In this case, let's assume that there are five "grades", A-B-C-D-F.

Channels Become Important, Too

Customer behavior varies from one year to another, based on the channels that the customer uses.

A pay-per-click customer will evolve in a different manner than a customer who purchases via e-mail marketing.

I like to segment the customer based on the channels the customer purchased from in the past. If the customer purchased from multiple channels, then that is coded as a "multichannel" customer.

If you have website purchases, pay-per-click purchases, affiliate purchases, and e-mail purchases, then you have five possible combinations (website, pay-per-click, affiliate, e-mail, multiple).

So far, we have five grades, grades that estimate customer quality. We also have five channel combinations. In total, the customer can fall into 5x5=25 segment combinations, at this point in the story.

Now Let's Add Merchandise To This Picture

Customers who purchase merchandise from various merchandise divisions behave differently.

Let's assume you have six merchandise divisions --- six tabs running across the top of your website. Customers can be classified into one of seven segments (one for each of the six divisions, plus a segment for a customer who purchases from multiple merchandise divisions).

In this simple example, we expand the segmentation system into 5 Grades * 5 Channels * 7 Merchandise Divisions = 175 segments.

At this point, we have much of the information we need to run the analysis.

However, there are other techniques we can use to reduce the number of segments while increasing the amount of information in the segmentation strategy.

Let's review a technique!

Factor Analysis: Reducing Dimensionality

A neat methodology for adding variables to an Online Marketing Simulation (OMS) is called a "Factor Analysis".

Here's what we do. We measure the channels the customer purchased from, the merchandise divisions the customer purchased from, the annual number of customer visits, the annual number of shopping carts abandoned, the merchandise a customer views online, the referring URLs a customer visits from, the customer reviews a customer reads or writes, the social media sites a customer participates in … all of this stuff can be tabulated.

Once tabulated, the data is entered into a Factor Analysis:

http://en.wikipedia.org/wiki/Factor_analysis

The job of a Factor Analysis is to combine a dozen or a hundred different variables, or "factors", based on variables that correlate with each other. We end up with a smaller number of factors that account for a dozen or a hundred variables.

We Can Create Segments From Factors

Let's say that we enter fifty variables, and we reduce the fifty variables down to four factors, based on a factor analysis.

Given the four factors, we can create segments from the four factors. I like to reduce each factor to just two segments … yielding 2x2x2x2=16 unique segments.

There are countless ways to manage this process. Be creative! Or don't do it at all, create your own segments, it doesn't matter --- what matters is that you incorporate customer quality, channel preference, merchandise preference, website activity, shopping cart abandonment, social media habits, and then use the information to segment current year and next year activity.

Given current year and next year activity, we can simulate how our business is likely to evolve in the future.

Given how the business is likely to evolve in the future, we can make changes to current practices in order to maximize the future of our business.

Regardless How We Create Segments, We Want To Simulate How A Customer Will Evolve In The Future

The Online Marketing Simulation (OMS) classifies customers into the segments the customer purchased from last year, then uses conditional probabilities to allocate customers into the segments the customer will reside in next year.

We add new customers into next year's segments.

Once we have next year's segments allocated, we replicate the process, allocating customers into segments for year two.

And then we replicate the process again for year three.

And then we replicate the process again for year four.

And then we replicate the process again for year five.

At the end of year five, you have a simulated five year trajectory of your business!

Example: Shopping Cart Abandonment

When you build an Online Marketing Simulation, you are able to answer important questions.

For instance, we can see how customers who abandon a shopping cart will behave in the future, given that the customer abandoned a cart. We can directly simulate three different customers --- the customer who purchases, the customer who abandons a cart, and the customer who visits the site but does not put anything into the shopping cart.

Each customer is placed into her appropriate segment.

Each customer is then migrated into future segments based on prior behavior.

This process is replicated for year two, year three, year four, and year five.

At the end of this process, we sum future sales and profit, and measure the difference in behavior (i.e. Purchaser = $200 value, Shopping Cart Abandoner = $140 value, Website Visitor = $80 value).

Example: Channel Migration

The Online Marketing Simulation allows us to observe the impact of channel migration.

For instance, we can measure the future performance of a customer who purchased from e-mail each of the past two years.

We can also see what happens to a customer who purchased from e-mail last year, and then from pay-per-click this year.

By comparing the future trajectory of each customer, we get to see how our marketing activities impact the future of our business. Does a significant increase in the pay-per-click budget cause customers to switch channels? Does a significant increase in the pay-per-click budget cause customers to become "addicted to pay-per-click", causing your business future unanticipated expenses? Does a customer buying from multiple online channels spend more, long-term, than does a customer who only purchases from one online channel?

Example: Merchandise Purchased

The Online Marketing Simulation helps the marketer understand the role that merchandise plays in your business.

Say you notice that featuring MP3 players in your e-mail campaign yields a significant increase in open rates, click-through rates, and conversion rates. Your management team wants to capitalize on this opportunity by featuring MP3 players in most of your upcoming e-mail campaigns.

What happens, however, if your business skews from the current assortment of merchandise to one where customers prefer to purchase MP3 players and MP3-related items? Is this good for the long-term health of your business? Is this bad for the long-term health of your business?

Use the Online Marketing Simulation to monitor the future merchandise preferences of the MP3 buyer, compared with the future merchandise preferences of the average e-mail campaign purchaser. How does future value change, how do merchandise preferences change? Are you helping or hurting your business?

Example: Affiliate Marketing

The Online Marketing Simulation is designed to help answer "trade-off questions".

For instance, a customer was going to purchase from your website, but instead visited an affiliate, and purchased via the affiliate site while using a free shipping promotional code.

Does the subsequent behavior of this customer differ from the customer who simply visits your site and purchases in a typical fashion?

And if the customer truly uses a promotional code that would not otherwise be used, do we anticipate a difference in future customer behavior derived by use of the promotional code?

Does use of affiliate marketing sites influence customer acquisition or customer retention activities?

Example: Offline Channels

The Online Marketing Simulation helps the business leader understand the impact of online activities in the offline world.

For instance, we can compare two customers.

The first customer purchased online last year, and then purchases online again this year.

The second customer purchased online last year, and then purchased in your retail store this year.

With an integrated data mart, you can simulate the five year trajectory of each customer segment. This allows the online marketer to understand the long-term impact of encouraging an online customer to shop in a retail store.

Similarly, we can measure the long-term impact of a customer who researches merchandise online, then purchases in a store, comparing this customer with a pure retail customer who does not use the online channel at all.

Example: Website Optimization

Let's say you optimized a series of landing pages, and conducted a multi-variate test to see if your new strategy increased conversion.

Let's say that you learned that one style of merchandising resulted in a 10% improvement in conversion rate.

The next logical step is to plug this information in to the Online Marketing Simulation. Create variables that determine which version of the website the customer was presented. Enter those variables, channel variables, and merchandise variables into your factor analysis.

Once entered, you have the tools to simulate the five year trajectory of customers who were exposed to different versions of your website. Did your efforts cause a short-term conversion rate increase and a long-term increase in customer value? Did your changes impact offline purchase habits? Did your changes result in customers who now prefer a different merchandise assortment?

Example: Keywords

The Online Marketing Simulation, especially when coupled with a Factor Analysis, is able to help measure the future trajectory of customers who visit your site based on different keywords.

You can create variables for customers who visit after keying 'Acme.com', and compare the long-term performance of these customers vs. customers who visit after typing the keyword 'tools'.

Similarly, we can compare the long-term trajectory of customers who visit via Google, comparing them to customer who visit via MSN.

By simulating the long-term trajectory of these customers, we get to see the channels these customers prefer in the future, the merchandise these customers purchase, and potentially the sale/discounted items a customer will purchase, in the future.

Example: Social Media

We are literally saturated with news about Social Media. Is Social Media simply hype perpetuated by online extroverts, or is Social Media responsible for a significant evolution in customer behavior?

The Online Marketing Simulation can help us answer this question.

Create variables for customers who visit from various social media sites.

Create variables for customers who interact with social media activities on your website.

Enter this information into the Factor Analysis, along with channel preference and merchandise preference.

Simulate future customer migration, comparing customers who visit via Social Media sites to those who use Social Media applications on your site to customers who purchase via traditional means.

Let's Look At A Simple Dataset

Customer	Recency	Demand 0-12 Months	Demand 13+ Months	Items per Order	Price per Item	Channel 1	Channel 2	Channel 3	Merch Division 1	Merch Division 2	Merch Division 3
1	80	$0.00	$916.50	1.89	$53.91	1	0	1	1	1	1
2	82	$0.00	$637.50	6.33	$33.55	1	0	0	1	0	0
3	75	$0.00	$537.98	3.67	$24.45	0	1	0	1	0	1
4	86	$0.00	$81.00	4.00	$20.25	0	0	1	0	1	1
5	91	$0.00	$139.65	7.00	$19.95	0	0	1	0	1	0
6	6	$556.10	$1,609.50	2.30	$47.08	0	0	1	0	0	1
7	83	$0.00	$230.50	2.50	$46.10	0	1	1	1	1	0
8	95	$0.00	$192.95	3.50	$27.56	1	1	1	0	1	1
9	79	$0.00	$960.75	3.63	$33.13	0	1	0	1	0	0
10	92	$0.00	$71.00	4.00	$17.75	0	1	1	0	0	1
11	92	$0.00	$442.00	10.00	$22.10	0	0	1	0	1	1
12	95	$0.00	$179.00	4.00	$44.75	0	0	1	0	1	0
13	81	$0.00	$264.00	6.00	$44.00	1	0	0	1	1	1
14	95	$0.00	$73.50	3.00	$24.50	1	1	0	0	1	1
15	76	$0.00	$1,009.00	2.20	$91.73	1	1	1	0	1	0
16	95	$0.00	$194.00	4.00	$48.50	1	0	0	0	0	1
17	87	$0.00	$213.00	6.00	$35.50	0	0	1	1	1	0
18	78	$0.00	$686.50	3.00	$45.77	0	1	1	1	0	0
19	84	$0.00	$195.00	6.00	$16.25	1	1	0	1	1	0
20	91	$0.00	$49.00	2.00	$24.50	1	0	0	0	1	1

Replicate The Dataset

From this dataset, we create the segments that the customer belongs to. Use simple techniques (RFM), create your own technique, or use the Logistic Regression / Ordinary Least Squares Regression / Factor Analysis process that I described earlier … it's up to you!

Identify the segment the customer belongs to.

Now replicate the entire process exactly one year in the future. Create a new dataset. Determine the segment that the customer belongs to one year later.

For each household, save the segment the customer belonged to last year, and the segment the customer belongs to next year. Append key information to next year's information, like demand spent next year, the channels the customer purchased from, the merchandise divisions the customer purchased from, and any additional information.

The Dataset Is Reduced: Each Customer Is In A Segment

Customer	Last Year's Segment	Next Year's Segment	Demand Next Year	Next Year Channel 1	Next Year Channel 2	Next Year Channel 3	Next Year Merch Division 1	Next Year Merch Division 2	Next Year Merch Division 3
1	12221	12221	$0.00	1	0	1	1	1	1
2	11212	11212	$0.00	1	0	0	1	0	0
3	12221	12221	$0.00	0	1	0	1	0	1
4	11211	11211	$0.00	0	0	1	0	1	1
5	12112	12112	$0.00	0	0	1	0	1	0
6	52121	52221	$556.10	0	0	1	0	0	1
7	11221	11221	$0.00	0	1	1	1	1	0
8	11221	11221	$0.00	1	1	1	0	1	1
9	11212	11212	$0.00	0	1	0	1	0	0
10	11212	11212	$0.00	0	1	1	0	0	1
11	12121	12121	$0.00	0	0	1	0	1	1
12	11121	11121	$0.00	0	0	1	0	1	0
13	11121	11121	$0.00	1	0	0	1	1	1
14	11212	11212	$0.00	1	1	0	0	1	1
15	12121	12121	$0.00	1	1	1	0	1	0
16	12121	12121	$0.00	1	0	0	0	0	1
17	12112	12112	$0.00	0	0	1	1	1	0
18	11121	11121	$0.00	0	1	1	1	0	0
19	12111	12111	$0.00	1	1	0	1	1	0
20	12112	12112	$0.00	1	0	0	0	1	1

Calculate How Customers Migrate, This Year To Next Year

The dataset is aggregated down to one row for every last-year / this-year segment combination.

By doing this, we understand the percentage of customers who migrate from one segment to another segment next year.

Within a spreadsheet model or a programming application, we apply these percentages to a segment of customers, allowing us to know the specific number of customers who will migrate from one segment to another segment.

This process is replicated for five years. New customers are added to the simulation.

At the end of five years, we have a simulated outcome. We can estimate and understand how customers will migrate over time.

It is this aspect of the Online Marketing Simulation (OMS) that is currently missing from most Web Analytics discussions.

Sample Migration Dataset

Last Year's Segment	Next Year's Segment	House-holds	# Who Migrate	Fraction Migrating	Next Year's Average Demand Spent
11111	11111	7,090	6,908	0.9743	$0.03
11111	11211	7,090	3	0.0004	$39.17
11111	11212	7,090	1	0.0001	$59.50
11111	12112	7,090	1	0.0001	$99.00
11111	12212	7,090	1	0.0001	$49.50
11111	21111	7,090	14	0.0020	$58.28
11111	21121	7,090	5	0.0007	$47.64
11111	21122	7,090	2	0.0003	$19.95
11111	21211	7,090	25	0.0035	$80.55
11111	21212	7,090	4	0.0006	$56.88
11111	21221	7,090	2	0.0003	$54.00
11111	22111	7,090	4	0.0006	$69.00
11111	22121	7,090	1	0.0001	$39.00
11111	22211	7,090	3	0.0004	$58.83
11111	22212	7,090	5	0.0007	$116.70
11111	31111	7,090	1	0.0001	$79.80
11111	31121	7,090	6	0.0008	$102.72
11111	31122	7,090	2	0.0003	$59.85
11111	31211	7,090	10	0.0014	$106.49
11111	31212	7,090	3	0.0004	$79.30
11111	31221	7,090	7	0.0010	$81.54
11111	31222	7,090	1	0.0001	$158.50
11111	32111	7,090	11	0.0016	$75.79
11111	32112	7,090	1	0.0001	$75.00
11111	32121	7,090	3	0.0004	$80.67
11111	32122	7,090	3	0.0004	$46.55
11111	32211	7,090	5	0.0007	$170.04
11111	32212	7,090	3	0.0004	$190.60
11111	32221	7,090	2	0.0003	$76.25

The Online Marketing Simulation (OMS)

Run Every Combination Of Segment Migration

After applying every combination of segment migration, from last year's status to next year's status, you have an illustration of the way the business looks next year.

Replicate this process for year two, year three, year four, and year five, and you know how a segment of customers, or the total customer file, is likely to evolve over time.

Let's review a simple example within a business that has twelve online channels and eight online merchandise divisions!

A Sample Five Year Run For A Segment Of Customers

Attribute	Year 1	Year 2	Year 3	Year 4	Year 5
Households	1,000	1,000	1,000	1,000	1,000
Households Buying This Year	612	394	263	192	155
Total Demand	$266,760	$134,432	$83,715	$60,587	$48,768
# Buying From Channel 1	4	3	2	2	1
# Buying From Channel 2	11	11	9	8	7
# Buying From Channel 3	4	2	1	1	1
# Buying From Channel 4	55	61	54	48	43
# Buying From Channel 5	64	36	24	18	15
# Buying From Channel 6	70	35	19	12	9
# Buying From Channel 7	200	127	82	57	45
# Buying From Channel 8	284	157	94	64	49
# Buying From Channel 9	21	11	7	5	4
# Buying From Channel 10	36	16	10	7	6
# Buying From Channel 11	66	35	21	15	11
# Buying From Channel 12	188	99	58	39	30
# Buying From Merch Division 1	52	44	35	28	24
# Buying From Merch Division 2	72	52	41	33	27
# Buying From Merch Division 3	345	207	128	90	72
# Buying From Merch Division 4	340	212	133	95	75
# Buying From Merch Division 5	152	121	91	70	58
# Buying From Merch Division 6	63	47	36	29	25
# Buying From Merch Division 7	106	60	42	32	27
# Buying From Merch Division 8	91	72	53	41	34
Demand per Annual Buyer	$436	$342	$319	$315	$314
Demand per Household	$267	$134	$84	$61	$49

The Online Marketing Simulation (OMS)

We Can Compare This Segment To Another Segment

Attribute	Year 1	Year 2	Year 3	Year 4	Year 5
Households	1,000	1,000	1,000	1,000	1,000
Households Buying This Year	417	251	169	132	112
Total Demand	$122,836	$75,363	$52,283	$40,928	$34,696
# Buying From Channel 1	5	5	3	2	2
# Buying From Channel 2	10	8	7	6	5
# Buying From Channel 3	1	1	1	1	1
# Buying From Channel 4	66	52	43	37	34
# Buying From Channel 5	32	22	16	13	11
# Buying From Channel 6	32	18	11	8	6
# Buying From Channel 7	150	84	53	39	32
# Buying From Channel 8	145	81	53	39	32
# Buying From Channel 9	9	5	4	3	3
# Buying From Channel 10	8	6	5	4	4
# Buying From Channel 11	57	26	15	11	9
# Buying From Channel 12	109	54	34	25	21
# Buying From Merch Division 1	48	33	25	20	18
# Buying From Merch Division 2	54	36	28	23	20
# Buying From Merch Division 3	169	103	70	54	46
# Buying From Merch Division 4	258	137	87	66	55
# Buying From Merch Division 5	196	105	69	53	45
# Buying From Merch Division 6	32	28	23	19	17
# Buying From Merch Division 7	48	32	25	21	18
# Buying From Merch Division 8	105	61	41	32	27
Demand per Annual Buyer	$295	$300	$309	$310	$308
Demand per Household	$123	$75	$52	$41	$35

The Online Marketing Simulation (OMS)

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Does Your Web Analytics Software Provider Offer You This Level Of Business Intelligence?

Where else can you incorporate the key elements of your business …

- Recency, Frequency, Monetary.

- Channel Preference and Merchandise Preference.

- Integrated Online and Offline Behavior.

- Social Media Activity and Search Keywords.

- Shopping Cart Abandonment and Online Visitation Behavior.

… and merge the results into meaningful segments that allow you to understand the long-term impact of the decisions you're making today?

Do you think that if you had this information, you could make better business decisions?

Get Started!

There are two ways you can use an Online Marketing Simulation (OMS):

- Step 1 = Extract your own data, and follow the general guidelines in this paper. Program your own Online Marketing Simulation!!! If you have a tech-savvy analyst on staff, you can do this yourself. Give it a shot!!

- Step 2 = Work with Kevin Hillstrom, the leading multichannel and online simulation practitioner, on an Online Marketing Simulation project!

    - Contact Information:

        - Kevin Hillstrom, President, MineThatData

        - Website: http://minethatdata.com

        - Blog: http://minethatdata.com/blog

        - Twitter: http://twitter.com/minethatdata

        - E-Mail: kevinh@minethatdata.com

Biography: Kevin Hillstrom

Kevin is President of MineThatData, a consultancy that helps CEOs understand the complex relationship between customers, advertising, products, brands, and channels. Kevin's Multichannel Forensics framework and Online Marketing Simulations have been utilized by more than forty brands, spanning Online Pureplays, Thirty Million Dollar Catalog Businesses, International Direct Marketers, and Billion Dollar Retail Multichannel Brands.

Prior to starting his own business, Kevin held numerous leadership positions at leading multichannel brands, including Vice President of Database Marketing at Nordstrom (2001-2007), Director of Circulation at Eddie Bauer, and Manager of Analytical Services at Lands' End.

Kevin is a well-known and sought-after conference speaker. Kevin has also authored numerous books, including "*Hillstrom's Multichannel Forensics*" and "*Hillstrom's Database Marketing*". Kevin also hosts the highly popular database marketing blog at http://minethatdata.com/blog.

Contact Kevin: kevinh@minethatdata.com or 206-853-8278.