

# *Analytics Exam*

**01** What is it?

**02** Demographics and Interests

**03** Data Segments

**04** Standard Campaign Parameters

**05** Ecommerce Data

**06** Default Channel Group

**07** Assisted Conversions

**08** Assigning Goal Values

**09** Digital Analytics

**10** Attribution Models

# *Analytics Exam*

**11 Event Tracking**

**12 Behavior Section**

**13 Traffic Volume**

**14 Unfiltered View**

**15 Secondary Dimensions**

**16 Bounce Rates**

**17 Display Ads**

**18 Site Search Report**

**19 Customer Alert**

**20 Destination URLs**

# *Analytics Exam*

**21 Mediums and Traffic Sources**

**22 Tracking and Real Time**

**23 Acquisition Reports**

**24 Micro Conversion**

**25 Table Filters**

**26 Ecommerce JavaScript**

**27 Margin Metrics**

**28 Dimensions vs. Metrics**

**29 Adding Data to Analytics**

**30 Revenue per Click**

# *Analytics*

## *What is Google Analytics?*

Google Analytics (now referred to as GA) is a tool that tells you how a visitor reacts to your page. It will tell you how they entered and for how long they stayed. GA relies on a tracking code which you must place on the pages you want to track. This is called the `trackPageView()` method. One of the most important things that GA tracks is how much money you are making and what your conversion rates are. This can tell you where in the conversion funnel you are doing poorly in. It will also allow you to test and experiment with different landing pages, keywords, and campaigns. When AdWords is integrated with GA, you will be able to make more informed decisions.

GA has several amazing features including internal site search, benchmarking, and funnel visualization. Internal Site Search follows how people search your website. This can lead to relevant observations and paths of conversions. Benchmarking allows you to compare your website with others in your industry. Funnel Visualization is my favorite since it allows you to figure out the best settings for conversions.

Google prides itself in keeping the data it collects anonymous. Although it will track where visitors come from it will not reveal personal information. Google also does not share GA data with third party advertisers.

# Targeting

## Demographics and Interests

Analytics includes data for your user's demographics and interests. You can think of the split like this: Demographics (Age/Gender); Interests (Affinity, In-Market, Other). Google Analytics takes the information from the DoubleClick third party Cookie. If a Cookie is not associated with a user, then GA will not be able to provide demographics or interest categories.

Data is also available in custom reports, and you can use it as the basis for segmentation. This will allow you to determine how your users' act given certain demographics and interests. These are the same targeting components you would use in the Google Display Network.

AdWords for video allows targeting based on demographics and interests. It's great for video.

# *Data Segments*

## *What are data segments?*

There are many different segments you should study when considering data. They include traffic by device, traffic by geography, traffic by marketing channel, and traffic by time of day.

Traffic by device includes mobile devices report which will organize data by mobile device, brand, service provider, etc. This is great information when designing a mobile website that is friendly to users.

Traffic by Geography is a filter which uses geo-fields to track data based on geographical regions. You can track by country or even track by smaller geographical regions such as cities or states.

Traffic by Marketing Channel tells you where your traffic is coming from. Is it coming from YouTube, third party websites (specifically which ones), organic or paid search.

Traffic by time of day tells you when most of your visitors are active. It is important to note that it is possible for you to have less traffic and more engaged visitors.

# Parameters

## Standard Campaign Parameters

It is very important to know each of the custom campaign parameters. You should always use *utm\_source*, *utm\_medium*, and *utm\_campaign* parameters to help keep track of different campaigns and *utm\_term* and *utm\_content* can be used for tracking additional information:

*utm\_source* will identify the advertiser, site, etc that is sending you traffic. Examples include Google, Citysearch.

*utm\_medium* will tell you the medium. Examples include cpc, banner, newsletter.

*utm\_campaign* will give you the campaign name, promo code, slogan.

*utm\_term* identifies the paid keywords that triggered. You can also use *utm\_term* to specify the keyword if you are manually tagging.

*utm\_content* is used to differentiate similar content. If there are two call to actions, it will tell you which version is best.

*utm\_adwords* is not REAL.

# *Ecommerce*

## *Ecommerce Data*

The Ecommerce Conversion Rate is the percentage of visits that end in an ecommerce transaction. It helps answer the question whether your marketing is delivering conversions and whether your audience is ready to buy. It is great for determining whether your website needs to be redesigned to make purchasing easier for users.

The Average Order value will allow you to see how well each deal converts. It will tell you whether your products listings are generating interest. It is also useful in determining whether cross-selling related products works.

You can use the overview report to determine how your campaigns are performing and which campaigns are more successful. Analytics tracks three important metrics to determine where your campaign is: transactions, revenue, and average order value.

You can use the Shopping Behavior Analysis report to identify weak points in your purchase funnel. This report will identify which points in the sales funnel need to be improved based on the point the audience leaves. Sometimes audiences leave to compare items; this will be obvious if the audience consistently leaves items in their carts.

# Default

## Default Channel Group

It is important to identify what the default channels are. There are eight of them: direct, organic search, referral, email, paid search, other advertising, social, and display.

**Direct:** Source exactly matches Direct AND Medium exactly matches (not set) OR Medium exactly matches (none).

**Organic Search:** Medium exactly matches organic.

**Referral:** Medium exactly matches referral.

**Email:** Medium exactly matches email.

**Paid Search:** Medium matches regex `^(cpc|ppc|paidsearch)$` AND Ad Distribution Network does not exactly match Content.

**Other Advertising:** Medium matches regex `^(cpv|cpa|cpp|content-text)$`

**Social:** Social Source Referral exactly matches Yes OR Medium matches regex `^(social|social-network|social-media|sm|social network|social media)$`

**Display:** Medium matches regex `^(display|cpm|banner)$` OR Ad Distribution Network exactly matches Content AND Ad Format does not exactly match Text.

# *Assisted Conversion*

## *What is an Assisted Conversion?*

If users are visiting your website several times before converting you would want to understand how they arrived at your site. Assisted Conversions is great for understanding whether a keyword is part of the conversion path.

A channel can play three roles in conversion paths: last interaction, assist interaction, and first interaction. Last interaction is the referral immediately before conversion. Assist interaction is any referral on the conversion path excluding the last interaction. First interaction is the first referral point, it is also considered an assist interaction.

Assisted Conversions are the number of sales that the channel assisted in. If the channel appears anywhere in the conversion path, it is considered an assist. You can determine how much important a channel is for assisting conversions based on the number. Last click is the final click before a conversion. The higher the number the more important the channel is for direct sales.

All conversions in which a channel was a non-last interaction is considered an assisted conversion. The value is the total value associated with the conversions. You will see some double counting across assisted and last conversions. Analytics will count a single person as two conversions if there were two conversion paths.

# Goal Values

## Assigning Goal Values

When assigning goal values the idea is to give a non-ecommerce conversion a monetary value. Each time the goal is reached, the value you gave it is recorded and added together. Every action a user does can be translated to a dollar amount. Assigning a Goal Value is optional when setting up Goals. However, giving it a value will help determine whether you should spend more money on a certain channel. ROI and Average Score depend on the Goal Value you set.

Goals are grouped in sets which appear in your reports beneath the Explorer tab. There are several goal types: destination, duration, page/screens per sessions, and events.

**Destination:** A specific location loads

**Duration:** Sessions that lasts a specific amount of time or longer

**Pages/Screens per session:** A user views a specific number of pages or screens

**Event:** An action defined as an Event is triggered

Setting up goals will allow you to see a list of transactions, conversion rates, and conversion paths in Google Analytics. Therefore it is a good idea to create a goal. You can choose either a template or a custom goal.

If you are tracking a transaction or purchase using the Ecommerce tracking code you can leave the Goal Value blank. The true value of the transaction will appear in the Revenue metric based on your shopping cart.

# *Analytics*

## *Digital Analytics*

Digital Analytics is defined by Google as a process of continual improvement of the online experience through the analysis of both qualitative and quantitative data obtained from your business. It also involves studying and comparing your data with your competition. Google offers an academy to help you improve your skills and develop best practices. Current courses include Mobile App Analytics Fundamentals, Ecommerce Analytics, Platform Principles, and Digital Analytics Fundamentals.

The Digital Analytics include topics such as navigating Google Analytics reports, conversion reports and collecting actionable data. There are four types of Analytics reports: audience reports, acquisition reports, AdWords reports, and behavior reports. There are also four types of Navigating Conversion Reports: goal flow report, ecommerce report, multi-channel funnels report, and attribution reports. Each of the above eight reports are important to learn. However, these reports rely on setting up the right account structure as well as setting basic filters, goals/ecommerce, and collecting valuable data.

# *Attribution*

## *Attribution Models*

Attribution models are set of rules that determine how credit for sales and conversions are assigned. Sales and conversions are normally assigned to certain points in conversion paths.

There are many attribution models you can choose from: last interaction, last non-direct click, last adwords click, first interaction, linear model, time decay, and position based model. The most important model to understand is probably the linear model (I use this one).

The linear model assumes that each touch point is equally responsible for the conversion therefore each of them share equal credit. Paid Search, Social Network, Email, and Direct channels share equal credit for the sale.

The Last Interaction model assumes that the last touch point results in the conversion and therefore receives all the credit.

The last non-direct click ignores all direct traffic and assigns credit to the last channel the customer clicked through before converting.

The last adwords click assumes that the first and only click to a paid search channel is responsible for the conversion and assigns credit there.

The first interaction model assumes the first touch point should receive credit.

The time decay attribution model assumes that the touch points closest in time to the sale or conversion should get most of the credit.

The position based model gives 40% of the credit to each the first and last interaction and the remaining 20% to the middle interactions.

# *Event Tracking*

## *Using Event Tracking*

Event goals are very useful in measuring data such as percentage of sessions where the user clicks a certain button. You can use track the button with an event and set up an event goal. This is the simple way to measure how likely it is for a user to click a certain button.

Events are defined as user interactions with the content and can include downloads, mobile ad clicks, gadgets, Flash elements, AJAX embedded elements, or video plays. They are great ways to collect data on how users interact with your website or app.

# *Behavior*

## *Behavior Section*

To identify the most popular content on your website you should go under the section behaviors. The Behavior section will have this report information by default available to you.. The behavior section is designed to help you improve the content on your website to meet the expectations of your users. You can view how frequently each page on your website was viewed. Higher bounce rates indicate these pages may need to be rewritten or redesigned.

# Traffic Volume

## Controlling Traffic Volume

There are two ways to measure traffic volume is the average time a user spent on the website and the number of visits. These two metrics are considered important metrics for measuring overall site traffic. You can use the Visitors Flow to compare volumes of traffic from different sources and examine patterns. You can also compare the relative volumes of traffic from different sources using the same dimensions. You can determine if one source is outperforming the others.

A/B testing will allow you to experiment with different versions of a web page and see which one drives the most traffic. You can also test based on browser and screen resolution. But perhaps the most important is path analysis. This will help you identify which paths users are most likely to take.

# *Unfiltered*

## *Unfiltered View*

Google suggests that you maintain one unfiltered view when applying filters to the Analytics account because the unfiltered view helps the original data from being altered. You almost always want to keep a copy of the original data to go back and look at. Analytics automatically creates one unfiltered view for every property in your account. However, you can set up multiples views for a single property. You can use filters to create customized views and analysis certain subsets of data in your reports. It is highly recommended that you don't delete or add filters to your original view. When you delete a view, that particular historical perspective of the data is gone.

# *Secondary*

## *Secondary Dimensions*

Dimensions are descriptive attributes or characteristics of objects that can have different values. Metrics are individual elements of dimensions that are measured as a sum or a ratio. Meaning can be derived from combining dimensions with metrics.

Most reports will allow you to add secondary dimensions. This will allow you to analyze two or more dimensions. Adding a secondary dimension is easy: use the drop down above the data table and search or browse for additional dimensions. You won't be able to add secondary dimensions in some reports.

If your objective is to see conversation rates for an operating system coming from a certain city you should choose operating system and city as your secondary dimensions to understand the data.

# *Bounce Rates*

## *Bounce Rate and New Visits*

Bounce rates are the percentage of single page sessions. Typically you want a low bounce rate. Google suggests several reasons your bounce rate may be low: single page site, incorrect implementation, and the most common site design. If your website is not designed correctly then you should redesign the landing pages, optimize those pages to correlate better with the search terms, and change the ads or keywords to reflect the page's content. You can use content experiments. A bounce rate of over 90% is considered poor. Site layout as well as confusing navigation is common reasons a person leaves a site. Improving your bounce rate can be as simple as creating a landing page.

Unlike bounce rate, a high new visits rate isn't necessarily bad. New visits may even be considered something positive. A new visit rate of 90% is does not suggest a poor landing page. Landing page often has very little connection with how poor a landing page performs. This is especially true if you are the one driving the new visitors to your website using PPC.

# *Display Ads*

## *Display Ads and Models*

Calculating the value of display ads can be difficult to do. One way is to use a linear attribution model which will give a percentage of credit to the first interaction. Another way is to simply use a first interaction attribution model. This works well if you find out that most of your customers initially learn your brand through display. It is important to calculate the ROI correctly since display can easily be ramped up.

# *Site Search*

## *Site Search Affinity Reports*

Site search reports are great for identifying what terms your visitors used to conduct search on your website. It will also allow you to see how clean your navigation is. This report provides information about how many of your traffic uses the search engine on your own website, what terms they are searching for and how engaged with their searches.

# *Custom Alerts*

## *Why Set Up Custom Alerts?*

Google Analytics uses an intelligence engine that automatically monitors your traffic and posts automatic alerts when it seems something strange. You can also tell Google to look for certain things you are worried about.

Five common custom alerts include Revenue Drop Alert, Landing Page Bounce Rate Increases, Campaign Performance, Keyword Performance, and Country Performance. Many of these alerts can measure both positive and negative trends. Often it is wise to set up two alerts for each of the above. One to alert you if something is wrong and the other to alert you if something is good. That way you can respond accordingly. I always tend to ramp up my spending if I get a positive alert.

# *Destination URLs*

## *Destination Urls/Landing Pages*

To see whether your landing pages are working you can use the Destination URL dimensions. This will allow you to evaluate landing pages that you are using for AdWords ads. This report will allow you to see the URLs that you've directed users from your AdWords ads, as well as any campaign tagging in those URLs.

The destination URL is the page where you are sending people. Each ad has a specified display URL and a destination URL. Google policy means that both URLs have to be within the same website (meaning they share the same domain). The destination URL does not have to be visible in the ad.

# *Mediums*

## *Mediums and Traffic Sources*

Mediums are attached to every referral. In fact every referral to a website has a medium. Mediums can be organic, CPC, referral, email, or none. Organic mediums are unpaid searches. CPC is paid search. Referral is simply referral. Email is the name of the custom medium you have created. None refers to direct traffic.

Traffic sources are the place where the traffic came from. For many optimized websites it is Google. Google is considered a traffic source. Referring websites are also considered traffic sources. This is different from the medium which is the type of traffic. It is important to understand the differences between a medium and a traffic source.

# *Tracking*

## *Tracking and Real Time*

You should only add a tracking code to your website after you implement planning. You should plan how your analytic affects your campaign. You can quickly determine whether your Google Analytics code snippet is working a specific website page using real-time.

Real time is a tool that allows you to monitor activity when it happens on your website or app. The reports are updated and you can see how many people are on your site, geographic locations, traffic sources that referred viewers, pages and events those viewers are interacting with, and which goal conversions occurred. Real time allows you to immediately and continuously monitor the effects that new campaigns and site changes have on your traffic. It's great for verifying that the tracking is working on your site or app.

# *Acquisition*

## *Acquisition Reports*

If you are interested in exploring metrics by campaign and traffic search then the acquisition report will be a good place to start. The report has four primary metrics: acquisition, behavior, conversion – ecommerce, and conversion – goals.

Acquisition focuses on the number of sessions, the percentage of new sessions, and the number of new users. Behavior focuses on the bounce rate, number of pages per session, and the average duration of a session. Conversion – Ecommerce focuses on number of transactions, revenue, and the conversion rate for ecommerce. Conversions-Goals focus on the conversion rate, the completion rate, and the goal value.

# Micro Conversion

## What is a Micro Conversion?

They represent minor transactions which users frequently engage in before making a purchase. They can include email sign ups, creating an account, browsing the site for a long period of time, or downloading a white paper. It is important to know you can stack micro conversions together to create the perfect sales funnel. A macro transaction on the other hand is a completed sale transaction.

Email sign up is when you define as the “Thank you for Signing up” page. You can attribute a value to this goal. If you estimate that every 5 customers who sign up buy something where your margin is 100 dollars then the value of a sign up is 20 dollars. People who sign up are much more likely to be engaged and buy your products.

You can ask users to create an account on your website. Not only will you get their emails, but you can ask for other person information. Asking customers to create an account has trended down recently, but I still like it for data bank purposes.

Another micro conversion could be to track how long and how many pages they view before a purchase. This is beneficial since it gives you data on what pages are popular before a purchase. You can change landing pages based on what you find.

My favorite micro conversion is when someone downloads a white paper. You will get their email as well as advertise yourself in a “neutral” way. When someone downloads a pdf they are generally interested in the topic. Here you will need to create an Event goal which is triggered by the link.

# Table Filters

## How to Use Table Filters

If you want to work in Analytics such as excluding rows with fewer than x visits you can use table filters to help you. Filters can be used to report on only a subdomain or directory. Filters can be used to replace long page URLs with more readable text. Filters can be used to exclude visits from a certain IP address. Filters can be used to include traffic that comes only from a particular campaign.

When you use advanced filters you will need to know the “wildcards” to work with the fields. Oh fun. Here’s a list straight from Google:

<b>Wildcard</b>	<b>Meaning</b>
.	match any single character
*	match zero or more of the previous item
+	match one or more of the previous item
?	match zero or one of the previous item
()	remember contents of parenthesis as item
[]	match one item in this list
-	create a range in a list
	or
^	match to the beginning of the field
\$	match to the end of the field
\	escape any of the above

# JavaScript

## Ecommerce JavaScript

Using JavaScript for ecommerce will allow you to collect and store information to make the buying process easier. You can sure the tax amount, how much the purchase was, the product SKU (love this feature for automobiles), billing city, etc. However, Google recommends that you should not collect credit card numbers using the JavaScript.

Before Analytics can report ecommerce activity you must enable ecommerce tracking and implement ga.js ecommerce tracking methods in your shopping cart pages. You can do this by creating a transaction object, adding items to the transaction, and submitting to the analytics servers. Essentially, [addTrans\(\)](#) into [addItem\(\)](#) into [trackTrans\(\)](#).

# Margin

## Margin Metrics

Margin metrics helps you determine if your campaign is profitable. This gives you an idea about how much money you should spend on a campaign. It is important to determine whether certain products should be advertised. Not every product is worth advertising. This can be the case if the product's margins are too low or if the CPC is too high. You should measure how much revenue is generated by the sale and how much money was spent advertising. Many times a product with low margins is not worth advertising.

# *Dimensions*

## *Dimensions vs. Metrics*

When creating a custom report you can choose from many dimensions and metrics. Dimensions and metrics are the Legos of your report; however you should understand the differences between the two. Dimensions describe data. They are the labels for your reports. You can think of them as answering the question of what. They are more qualitative in nature. Metrics are the measurements for the data. They are a subset of a dimension. They are more quantitative in nature. You can think of them as answering the question of how.

Regions and Screen resolution are two examples of a dimension. Percentage of new visits and bounce rates are examples of metrics.

# Data

## *Adding Data to Google Analytics*

There are two simple ways to add data: cost data import and dimensions widening.

Cost data import is a feature that allows you to take exported cost data and upload it to Analytics. The cost data is joined with user interaction data and creates a ROI analysis for paid campaigns. Custom data sources can represent a single or a multiple external data source. Before uploading cost data into Analytics you need to create a custom data source. You can only create one through the Google Analytics web interface. Each custom data source has a unique ID required to upload the data.

Dimensioning widening is now called custom data import. They work exactly the same. Custom Data import allows you to join data by deciding what data to import, creating necessary custom dimensions/metrics, creating a data set, uploading your data as a CSV, and viewing data.

# *Revenue*

## *Revenue per Click*

To calculate Revenue per Click you must specify a goal value in Analytics. You should assign a value for each goal that is set up. The value of the goal is the revenue of the conversion (usually a sale). The revenue per click is simply the Goal Value multiplied by the Conversion Rate. This means every single time someone clicks on your ads, you gain that value. The reason to set this up is to determine how profitable each keyword is. If a non-profitable keyword is being clicked, every time someone clicks you lose money.

If your keyword is not profitable you can try lowering the CPC. You can also try improving your conversion rate by designing new landing pages.