

Google Analytics @ HP

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Really?



Google Analytics demo account login

- Log-in to your Google account
 - Can be gmail or business email attached to Google account
- <https://analytics.google.com/analytics/web/demoAccount>
then click **→ACCESS DEMO ACCOUNT←**
- If you already have a Google Analytics account, the demo site data is added to the sites you already monitor.
- If you have a Google account but not an Analytics account, one is created and the demo account is added to it.



Key learning Objectives for Web Analytics workshop

Today you will:

- Learn essentials of how Google Analytics (G.A.) works.
- Discover what G.A. can tell you.
- Get questions about web analytics answered.
 - Who visits pages?
 - Where visitors are located?
 - What types of computers, operating systems, and browsers are they using
 - Which pages do they enter and leave?
- Gain a clear sense of practical next steps you can take using GA



Things you will learn today:

- Essentials of how Google Analytics works so you can make sure you are getting the data you need.
- Account set-up best practices
- Understanding reporting interface
- Filtering data to obtain information you need
- Go beyond counting visitors: how data relates to a business
- Creating and using dashboards and automated reports
- SEO essentials and tools

About Web Analytics

Web analytics is more than collecting data. It involves analyzing data, creating information, and generating insight.

Common web analytics information:

- Who is visiting pages
- Devices and browsers used when visiting
- How they arrived
- Pages being visited or content being viewed
- How long visitors are spending on pages
- Are visitors doing what you expect or want



How web analytics can be used

- Determine what works and doesn't work on a site
- Analyze trends: more useful than individual snapshots of data
- Monitor the effectiveness of page design and content
- Determine if users needs are met when visiting a site
- Monitor the effectiveness of campaigns to determine:
 - Which campaigns and mediums generate the most actions
 - What campaigns have the most actions



Using web analytics data

- Analytics involves measuring, collection and analysis of data for the purpose of optimizing and understanding a business.
- The data isn't the end-goal; use the data to:
 - create information
 - help you and your organization make better decisions based upon data
- The data itself can provide information overload
 - Understand which measurements matter for your business decisions
 - Discover how to filter, segment, and mask data



Types of Web Analytics

- Off-site analytics: Internet-wide, describing patterns across the entire Web, or a series of related websites. For example, all news websites, or all online shopping sites
- On-site analytics: Provides data about a specific site
 - You must manage a site to obtain detailed traffic information about it.
 - Google Analytics is on-site analytics



G.A. provides

- a wealth of visitor information
- Data analysis tools
- Data segmentation tools



G.A. does *not* provide

- Personally identifiable information (PII)
- Analysis
- Insight
- Interpretation



G.A. measures if visitors are meeting your specific goals and objectives

- Sign-up for an account
- View a video
- Download a print driver
- Access a coupon
- Add an item to their shopping cart
- Complete a Purchase



Customer journey and goals

- Many visitors make small, incremental steps towards final commitment: micro conversions
- Google Analytics goals can identify both smaller or larger steps in purchase or commitment process.
- These steps are *goals*, which are unique to each site



Customer journey & G.A. role

- Attract
 - Visit site
 - Measure: source, bounce-rate
- Engage
 - View a product; Watch a video; download PDF
 - Measure pageviews, % exits
- Convert
 - Add to cart; sign-up for newsletter
 - Measure ecommerce transactions; newsletter sign-ups; sources for these visitors
- Retain
 - Repeat purchase
 - Measure: Retargeting clicks; repeat visits; repeat purchases
- Advocate
 - Social media share; write a review
 - Measure: social media mentions; visits from social media; from review sites



Exercises:

- Identify what you want to measure
- List goals or objectives for site or pages you manage
 - Short-term: initial visits
 - Longer-term: repeat visits



GA setup essentials



How on-site analytics works

- JavaScript code is inserted into website or app being monitored
- JavaScript sends data to analytics provider
- Provider collects, processes, organizes, then displays data about site visitors when you log-in or access via API



Google Analytics setup

- Copy and place .js code on the site you wish to monitor
 - Only use the code on a single site
 - Each site should have its own unique tracking ID
 - Set-up multiple sites with unique code on every site
- Code is generally placed between opening and closing <head> or <body> tags
- Types of .js you may see
 - **ga.js** is the legacy code
 - Found on older implementations
 - **analytics.js** is the current code
 - analytics.js has ambitious, cross-device goals
 - **GTM** is Google Tag Manager
 - Used to consolidate scripts
 - Allows GTM JS to be inserted one time and updates made via web UI (CMS for JS)



Google Analytics setup (continued)

- js fires on page load
- Default setup does not track downloads, clicks
- Other actions can be tracked via GA Events



Account

- Top-level Google Analytics account access
- An account may be attached to multiple websites (properties)
- Account-level access is similar to "super user" access



Property

- Each specific website is a property
- A single Google Analytics account can monitor multiple properties
- Properties can also be web-enabled apps
 - iOS
 - Android



View (reporting view or profile)

- Defined view of visitor data from a property
- Views may be filtered or unfiltered
- When created, Views are not retroactive; they display data going forward after they are created
- Views can filter website data – including all data if not set-up correctly



Best Practice: Create an unfiltered view

- One view should be unfiltered as a safety net
- Once your data is filtered, it can't be recovered



Best Practice: Create multiple views

- Create better understanding of most valuable visitors
- Use filters to exclude internal HP traffic or focus on certain geographies
- Example Views:
 - North American Visitors
 - Mac visitors
 - Windows visitors
 - Mobile visitors
 - External visitors (no HP traffic)



Make sure GA is Set-up Correctly

- Accounts
- Properties
- Views



Exercises: Accounts, Properties & Views

- Identify Accounts, Properties and Views for your site(s)
- Either create views on your account (or)
- Plan the views you want to create



Reports and Viewing Data



Terminology

- Bounce rate
- Visit
- User
- Pageviews
- Unique _____



Metrics

- Metrics are measurements that Google Analytics displays
- Displayed in blue when selecting those to display
- Metrics are displayed in columns



Examples of Metrics

- Bounce rate
- Visits
- Time on site
- Conversions
- Time on Page
- Clicks
- Impressions
- Unique Page views



Understanding Bounce rate

- Bounce is any visitor that only sees one page during a session
- Is bounce rate good or bad?
 - Depends upon the objectives of the page
 - If goal is to drive visitors further into the site, bounce rate should be low
 - If objective is to provide a single piece of information, then a higher bounce rate may be expected.



Dimensions

- Dimensions are attributes describing data.
- Dimensions are generally text (exception is *age of visitor*)
- Displayed in rows
- Displayed in green when selecting those to display



Examples of Dimensions

- Browser
- Operating System
- Country
- City
- Campaign
- Landing page
- Language
- Device



Approach G.A. with questions

- Avoid information overload
- Think in terms of what you want to learn:
 - Who
 - What
 - When



Example Queries for G.A.

- Who Visits Site (Audience)
- How they Got there (Acquisition)
- What they did while on site (Behavior)
- Did visitors do what we wanted (Conversions / Goals)



Understanding the User Interface

- Select property and view to work with on top left, then select:
 - Reports along left side
 - Date range in upper right
- Home provides dashboard of metrics perceived as relevant for your site
 - Each section provides links to more in-depth reports
 - Customized dashboards are also available
- Middle section of left side selects type of reports
 - Audience: Who
 - Acquisition: Where did they come from?
 - Behavior: What
- Bottom left gear icon is the administrative menu
 - eg: add new users; configuration



Reports

- Information gathered for you regarding site visitors
- Accessed via left-side of interface
- Separated into:
 - Audience
 - Acquisition
 - Behavior
 - Conversions



Home Screen

- Dashboard
- Varies from site to site



Use Date Ranges in Reports to see Trends

- GA displays 30 day window by default
 - Data is generated once code is placed on page
- Longer ranges allow for trend reporting
 - Weeks and months are better than days for trend analysis
 - B2B: View weeks not days
- Custom date ranges span all reports until changed
- Date comparisons provide useful metrics



Ignore Real-Time Reporting

- Provides only a brief snippet in time
- Can provide distorted perspective
- Like viewing the night sky with a telescope the size of a drinking straw



Audience: Key Reports

- Overview
- Demographics: age, gender, interests
- Computer device used
 - Browser
 - Operating System and version
- Location
- New vs. Returning



Go Beyond Overview Reports

- Change the metric displayed
- Select a second or different metric
- Select different reports
- *Reminder: Reports display information for the view and timeframe you have selected; not necessarily all site visitors*



View types within standard reports

- Data, percentage, performance,
- Table view: big picture overview
- Pie charts (not always useful with more than a few dimensions)
- Performance
 - Can sort any column by clicking on it when in a performance view
 - *Spend time covering various ways to sort in the performance view*



Demographics & Interests

- Age, gender, hobbies
- Must be enabled
- Information taken primarily from:
 - Cookies: visitor's browsing history
 - Google properties



Geography

- Language
 - Language used is a function of browser
 - Browser doesn't tell you too much as user might be Hispanic but working with an English browser, for example.
- Location
 - Population centers being measured can affect results
 - May want to remove or focus on visitors users from different countries
 - May want to remove visitors from outside your region or country
 - Filter out unrelated traffic
 - Can also filter internal (corporate) traffic using *segments*



Behavior

- New vs. Returning
 - New Visitors: Is site seeing enough new interest to allow for growth?
 - Return Visitors: Tend to be most likely to take action: is this number consistent or growing?
- Frequency & Recency
 - How frequently do visitors return?
 - How much time do users take between visits?
- Engagement
 - How often do visitors return to site



Technology

- What operating systems do you need to support?
- When should you end support for an old O.S.?
- On what browsers should you test and QA?
- Does the user's device or browser impact their experience?
- Network
 - On which networks are users who visit site?
 - Bulk coming from primary ISPs
 - For B-2-B: search for college, university, corporation
- Plotting rows
 - Clicking checkbox, then click "plot rows"



Mobile

- Mobile devices used



Export and Share Reports

- Reports can be **exported**
 - Multiple format options exist
 - Use CSV for additional manipulation
- Reports can be **saved**
- Reports can be emailed on a schedule



Use Secondary Dimensions

- Secondary Dimensions add additional perspectives to data
 - Combine with primary dimension
 - Available for most reports
 - Fleeting: To save reports with secondary dimensions, save them



Save modified reports

- Use shortcuts to save modified reports
 - Secondary dimensions are retained when saved as shortcuts



Exercise

- What were the percent of new visits for the past three months for the site you are measuring?
- What percent came from mobile?
- What is the bounce rate for this period?



Acquisition



Acquisition: How visitors found site

- Search: Organic, Paid
- Direct: The page directly typed-in or bookmarked
- Referral: Link from another site
- Social: Facebook, Twitter, Instagram, etc.
- PPC: Paid Search
- Display advertising



Use Acquisition to determine success of initiatives to drive traffic to site

- SEO
- Campaigns



Acquisition Overview & Channels

- High-level groupings of how traffic arrived on your site
- Search: Organic, Paid
- Direct: The page directly typed-in or bookmarked
- Referral: Link from another site
- Social: Facebook, Twitter, etc.
- Display advertising



Source & Medium

- Source: Who sent the traffic
 - Google
 - Bing
 - Direct
- Medium: Category for the source
 - Organic
 - CPC (paid search)
 - Display
 - None (for direct traffic)



All traffic

- Direct traffic
 - Keying URL directly into the web address
 - An email from a colleague or untagged link
 - *Outbound email marketing should be tagged so you know the source*
 - Visitors using a bookmark to return to your site
- All referrals: Sites that link to yours



Campaigns

- Google automatically adds tracking codes to campaigns placed on their network
- Tagged links that point to your site
 - Eg: embedded help.html file embedded in device could include campaign tracking code



Applying custom tags

- Apply tags at the end of the url string
- Place a question mark (?) then follow with tag
- Placing an ampersand (&) between each tag used
- Tags to use are
 - utm_source=
 - utm_medium=
 - utm_campaign=
 - utm_term=
 - utm_content=
- Register for our spring conference: http://www.perio.org/spring-conference?utm_campaign=spring-conference&utm_medium=social&utm_source=facebook



Additional considerations for custom campaign tags

- Without utm parameters, campaigns appear as "not set" in Google Analytics
- Don't add tags for Google ads as Google applies tags within its network
- Campaigns report show up in the Campaigns section of the Sources
 - Can use a secondary dimension of Medium to determine where campaign was generated from, or you can do this for source



Additional considerations for custom campaign tags (continued)

- Don't tag internal links
 - Internal tags will override how users arrived on the site
 - Events can be set-up to tag internal links (covered in 301)
- Tagging offline ads: magazines; billboards
- Use redirects on the site, and the redirect inserts the parameters
- Google's Campaign URL Builder page is a helpful resource



Acquisition Reports (continued)

- Social
 - Certain sites share data with Google Analytics to report activity
- SEO
 - Queries: What users typed into Google
 - Landing Pages: Where users were sent



Not Provided & Not Set

- Not provided: Google has decided to not share the information
- Not set: Google does not have the information



Behavior



Behavior: What Content is Hot & Not

- Provides page-level and category-level metrics rather than site-level metrics
- Landing Pages: Where people are entering your site
- Exit pages: Where people are leaving your site
- Navigation summary for specific pages (selected across the top) shows page visited before and pages visited after



Bounce vs. Exit

Page	Pageviews	Entrances	Bounce Rate %	Exit %
Page 1	3	3	33%	33%
Page 2	2	0	0	50%
Page 3	1	0	0	100%



Reducing bounce and exits

- Improve speed
 - Minify js
 - Reduce size of images
 - Keep JS so it doesn't render-block
 - Use CDN
- Improve User Experience
 - Focus on user needs not simply visual design
 - Optimize for all devices and all browsers



Data Sampling

- Google Analytics doesn't always display full data
- Data is sampled when:
 - More than 500K visitors
 - More than 50K of rows of data
- Data sampling icon displayed near date range, in upper right corner
- If sampling occurs, there are ways to get more accurate data:
 - Increase precision of sample set
 - Reduce date range to minimize sampling
 - Sampling tends to happen more on custom segments when G.A. needs to calculate data



Site Speed

- Page Timings: Faster load time is tied to SEO and conversions
- Should optimize page load time so it is decreasing
- Can reduce page load time with
 - Optimized images
 - Optimizing JS
 - CDN



Filters, Segments, Masks



Filter your data

- View-level filters:
 - ip address, section of site visited
 - Not retroactive
 - Apply to data as it is collected not viewed
 - Can also be created at the Account level then shared across views
- Segments
 - Retroactive
 - Use for almost all dimensions: age, gender, location, device type, OS, etc.
- Masking within reports
 - inclusive or exclusive
 - Apply to either primary or secondary dimension



Filters: General Information

- Filters are applied on the profile level
 - predefined filters
 - custom filters
- Data cannot be reprocessed as raw after it has been filtered.*
 - Always keep at least one unfiltered profile.**



Predefined filters

- Exclude from domains: excludes traffic from specified domain names
- Exclude traffic from an IP address:
- Include traffic to subdirectories:
 - Use this to allow a profile to view traffic to only one part of a website (eg: blogs)



Custom filters

- Include / exclude: use this to exclude certain visitors, such as those from an IP range
- Search / replace: Use this to replace codes with plain language. For example, id=100 could be "shoes"
- Uppercase / lowercase: Use to standardize URLs because Google Analytics sees uppercase and lowercase URLs differently, even if they display the same data.
- Advanced: Can combine data from multiple fields.
- Exclude referrers: Use to exclude traffic sent from a domain that you do not want to track. Available for domain or IP address.



Dashboards and Alerts



Custom Dashboards

- Create from templates or from scratch
- Access shared templates
- Single page view across all report types
- Can be set to email on specified schedule



Alerts

- Automatic or Custom
- Provide alerts to noteworthy activity
 - Good or Bad
- Can be emailed or texted



Create Custom Alerts

- Bounce rate increases
- Drops in visitors
- Email and text alerts available



Events



Know Events are Available

- Events track non-pageview items
 - PDF
 - Social Shares
 - Video actions (play, pause, completion)
- Require additional JS



Event tracking

- Events are used to track non-page clicks,
- When using events, keep the following in mind:
- Events do not create a page view
- You can organize events into categories
- Events appear in the Events panel (a separate section – so they don't surface as easily when looking at overview reports)



Arguments you can use when tracking an event

- Category: "bucket" (eg: videos)
- Action: What occurs with the event (eg: play)
- Label: name (eg: admissions)
- Value: numerical (eg: time of video)



Implementing Event tracking

- The code you use for events: `_gaq.push(['_trackEvent', 'name', 'label', 'value']);`
- An example event:

```
<a href="https://www.facebook.com/agitraining"
onClick="_gaq.push(['_trackEvent', 'social-media', 'click',
'facebook']);">Visit our Facebook Page</a></p>
```



Event code



Evaluating Events

- Total events: The total number of times an event occurs.
 - Example: If the play button is being tracked, and it is pressed five times, the value would be five.
- Unique events: The number of times an event occurs per visit
 - Example: If one user presses the same play button five times, it only would report as one.



Exercise: Events

- Which activities on your site require an event to measure
- Write pseudo-code for tracking these events



Goals



Understanding Goals and Conversions

- Google Analytics is at its most powerful when you have goals
 - Goals are essential because they provide the lens through which you see performance
- When you reached a goal you've achieved a *conversion*.
- Having clearly defined goals in place is essential for the optimal use of G.A.
- Not just specific revenue goals — but also
 - What is the purpose of your organizations' digital footprint?
 - What are the goals of your website?



Creating Goals

- Measure success
- Individual to sites
 - Registration for events
 - Subscription
 - Purchase
 - Donation
 - Time on site
 - Pages viewed
- Created in Admin area; viewed in reporting interface
- View-specific not site specific



Goal reporting

- Conversions show goals that have been achieved
- Funnel report shows where drop-off occurs within the funnel



Useful to set-up tiered goals

- Macro Conversions:
 - Measurable with a dollar impact
 - Ecommerce sales;
 - Lead Generation
- Micro Conversions:
 - Steps along customer journey
 - Downloading a brochure or whitepaper
 - Generally show that the site delivering customer value
 - Show interest in your site or service
 - Examples
 - Playing a video; playing it to the end
 - Downloading a PDF



Goals and the conversion funnel

- The conversion process, or funnel is the lifecycle for a customer
 - From prospect to customer to repeat customer
 - **Attract > Engage > Convert > Retain > Advocate**
 - The value of conversions tends to increase as you move from attraction to advocate.
- Where does each goal fit in the funnel process
 - Segment goals into top or bottom
 - Think about micro goals and macro goals



Conversions track interaction with site

- Activity
- Interaction
- Time spent on site



Examples of goals

- Reaching a destination URL
- Spending a specific amount of time on the site
- Visiting a certain number of pages
- Events: watching a video; downloading a white paper



Goals can require a funnel

- Optional
- Allows you to define a specific conversion path
- Allows you to define different conversion goals that might have the same result
 - eg: Facebook ads that lead to a sale vs. Adwords spending with same result



More about goals

- Goals are set at the profile level
 - Part of the administrative area
- You can have
 - Four sets of goals
 - Five goals per set
 - Total of 20 available goals
- Once goals are set, they can't be removed



Matching URL goals

- Exact match: regular URL
- Head match: Eliminates trailing characters
- RegEx match: Allows you to specify a pattern to match



Other conversion data

- Ecommerce
- Multi-Channel Funnels
- Attribution



SEO



SEO – understanding organic traffic

- Using GA for SEO
 - organic traffic sources
 - organic traffic landing pages
- Other SEO Tools from Google
 - Webmaster Tools
 - PageSpeed Insights



SEO – improving pages

- On-page
 - Page title
 - Headlines
 - Body copy
 - Images
 - Well-structured content and the DOM
 - Page speed
- Off-page
 - Links from home page
 - Content silo and breadcrumbs
 - Sitemap
 - Site speed
- Off-site
 - Backlinks



Internal Site Search

- Discover what users are searching for on your site
- Requires search query parameters in the URL
 - eg: ?q=search-terms
- Use to compare goal completions for visitors who use search vs. visitors that don't
- Use to determine what content users are having difficulty locating
- Site search shows start page, destination page, search terms used



Cross-Domain Tracking



Analytics.js cross domain tracking

- Setup differs between analytics.js and GTM.js
- Easiest setup is to use linker plug-in
<https://developers.google.com/analytics/devguides/collection/analyticsjs/linker>



Linker cross domain tracking

- Use this on both sites:

```
ga('create', 'UA-XXXXX-Y', 'auto', {allowLinker: true});
ga('require', 'linker');
ga('linker:autoLink', ['source.com', 'destination.com']);
```



Manual cross domain tracking

- Winthin analytics.js
 - Use one property ID across domains
 - Edit tracking code
- Original code looks like this:


```
ga('create', 'UA-XXXXXXX-Y', 'example-1.com');
```
- Make the following changes to the snippet on the primary domain – changing everything following the tracking ID:

```
ga('create', 'UA-XXXXXXX-Y', 'auto', {allowLinker: true});
ga('require', 'linker');
ga('linker:autoLink', ['example-2.com'] );
```



Manual cross domain tracking (cont.)

- Make the following changes on the second domain to be tracked:

```
ga('create', 'UA-XXXXXXX-Y', 'auto', {allowLinker: true});
ga('require', 'linker');
ga('linker:autoLink', ['example-1.com'] );
```



Reporting across multiple domains

- Domains are not listed, so filters may be needed to identify which pages belong to which sites. If so:
- Create copy of reporting view that includes data from all domains and add advanced filter to the new view.
- Filter setup for cross-domain reporting to show domains:

Filter Type: Custom filter > Advanced
 Field A: Hostname Extract A: (*)
 Field B: Request URI Extract: (*)
 Output To: Request URI Constructor: \$A1\$B1
 Click Save to create the filter.



Google Tag Manager



Google Tag Manager (GTM)

- Single tag placed on all pages
- Integrates G.A. and other JS tags
- Managed via a web interface
- Generally use GTM or separate tags — not a combination
- Like G.A. — GTM can be used on web or mobile



Google Tag Manager Implementation

- Determine Metrics or Dimensions to measure
- Plan tagging strategy for each metric / dimension
- Plan if data layer variable is needed for dimension / metric



Triggers Available in GTM

- Pageviews
- Clicks
- Form Submission
- Timer
- Custom Events



Google Search Console



Google Search Console

- Lists broken links
- Lists broken links
- Identifies pages Google has crawled
- Can be integrated with G.A. via Settings



Alternative data access options



Other ways to access G.A. data

- Google Sheets with G.A. plug-in
- API access: see developers.google.com
 - Data reporting
 - Management of accounts properties, views, profiles
- Google Data Studio



Questions?

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