

# Web Analytics

# Who Am I?

Digital Analytics Specialist / Web Developer in the Office of Communications and Marketing

Chair of the Mason Google Analytics Users Group

Manage the Mason Google Analytics Roll-Up

Available to provide support, consultation, and training regarding web analytics on any platform.

# What is Web Analytics?

“Web analytics is the measurement, collection, analysis and reporting of web data for purposes of understanding and optimizing web usage.” (Wikipedia)

There are two major types of web analytics methodologies:

- Log-Based

- Javascript-Based

# Log-Based Analytics

When a user requests content from a web server, that request generates an entry in the server's request log.

By analyzing the server request log, you can determine how your content is being consumed (and some information about who is consuming it).

Example - Tracking Pixels: tracking pixels are links to transparent 1x1 pixel images included in HTML content (emails or web pages) solely for the purpose of generating a request to the server hosting the tracking pixel image (usually a third-party server). *This is how email open rate statistics are calculated.*

Log-based analytics generally provide less information than JavaScript-based analytics.

# Javascript-Based Analytics

Web pages include JavaScript code which causes the receiving browser to send tracking information to a server.

Example - Google Analytics: When you create a Google Analytics property, Google gives you a block of JavaScript code to include on every page of your website. When a user receives one of your pages, the included JavaScript code executes and causes the user's browser to send tracking information to Google Analytics.

Javascript-based analytics can provide much more detailed than log-based analytics.

# Why Google Analytics?

It's free.

It's good.

It's flexible. You can:

- filter or modify incoming data (“filters”).
- add your own data (“custom dimensions”).
- set-up custom tracking of specific actions users take on your site (“events”).
- define your own marketing goals (“goals/conversions”)
- determine how visitors to your site are categorized (“campaign tagging”)

# How is Google Analytics Organized?

- Accounts
  - Properties
  - Views
- Users

Properties (usually) represent individual websites.

Accounts are containers that organize those websites.

Views are the actual collections of analytics data.

# Google Analytics: Users

A user means a registered Google Account. This could be a Gmail account, but you can create a Google Account associated with any email address.

Recommendation: create a Google account associated with your gmu.edu email address. (Or, better yet, with a shared gmu.edu email address.)

Users can be given access at any level (account, property, or view).

User permissions include: “Read & Analyze”, “Collaborate”, “Edit”, and “Manage Users”.

Make sure that you have more than one user with "Manage Users" permissions!



# Google Analytics: Accounts

An account is just a container for properties (websites).

There are not many important settings at the account-level.

Naming: use the name of the business unit which is responsible for the websites within the account.

Note: properties can be moved between accounts.

# Google Analytics: Properties

Properties *usually* represents individual websites, but they can include multiple websites.

Each property has a unique ID number, known as the UA-ID. This number is specified in the JavaScript tracking code that is provided by Google Analytics.

Settings: name, website URL, referral exclusion list, custom dimensions, etc.

Naming: use the website's domain name.

Note: properties can be moved between accounts.

# Google Analytics: Views

Views contain the actual tracking data for your property (or a subset of the data, if the view is filtered).

This is where most of your important settings are located.

Settings: name, time zone, traffic filtering, site search configuration, goals, content grouping, etc.

# Google Analytics: Views (continued)

You should have at least these three views in each property:

- An unfiltered view (your raw data)

- A test view (for testing changes)

- A production view (for official use)

Naming:

- Include [RAW], [TEST], [PROD] indicator at the beginning.

- Include the site domain name, if applicable.

- For production views, include a short descriptive name.

- Include effective date at the end.

- Example: [PROD] www2.gmu.edu - All Traffic 2.0 (2017-06-25)

# Google Analytics: Roll-Up Properties

A roll-up property is a property that collects data from more than one website.

Roll-up properties allow you to aggregate tracking information across multiple websites.

You have to do a bit of additional configuration to get it working correctly.

Add a filter to include the website domain name in the page path field.

Recommended property structure:

- Individual website

- Unit/Department-level roll-up (optional)

- University-level roll-up

# How to Implement Google Analytics

Paste the JavaScript tracking code directly into your site's HTML code.

Make sure to include it on every page of your site.

If using WordPress/Drupal, use an appropriate plugin/module.

The plugin/module will handle including the tracking code on your pages.

Use Google Tag Manager.

GTM is also implemented using JavaScript code. GTM then loads the GA tracking code.

Future analytics implementation changes don't require tracking code changes.

# Analytics Implementation Testing Tools

WASP (Web Analytics Solution Profiler) Inspector

Chrome extension

Lets you see in real-time what analytics data is being sent.

Google Tag Assistant

Chrome extension

Lets you see what analytics tags are loaded.

Connects with Google Analytics to show you how GA sees your site activity.

# Analytics Workflow

Implement analytics.

Test your implementation.

Explore the data and analyze for insights.

Take action based on insights.

Refine your analytics implementation.

Implement -> Test -> Analyze -> Act -> Refine













# Where Do I Start?

The Landing Pages report shows you where users enter you website, and how effective those different entry points are.

You can see which landing pages are underperforming, and take steps to improve them.

*“...the world is dominated by search engines, and those search engines, not you, determine the home page of your website.” -Avinash Kaushik*

Landing Page <sup>?</sup>	Sessions <sup>?</sup> ↓	% New Sessions <sup>?</sup>	Bounce Rate <sup>?</sup>	Pages / Session <sup>?</sup>	Avg. Session Duration <sup>?</sup>
	<b>1,311,260</b> % of Total: 100.00% (1,311,260)	<b>39.70%</b> Avg for View: 39.65% (0.12%)	<b>33.58%</b> Avg for View: 33.58% (0.00%)	<b>2.35</b> Avg for View: 2.35 (0.00%)	<b>00:03:13</b> Avg for View: 00:03:13 (0.00%)
1. /index.php 	<b>801,431</b> (61.12%)	<b>41.41%</b>	<b>30.71%</b>	<b>2.44</b>	<b>00:03:24</b>
2. /admissions-aid/apply-now 	<b>57,684</b> (4.40%)	<b>32.19%</b>	<b>20.99%</b>	<b>1.98</b>	<b>00:02:50</b>
3. /admissions-aid 	<b>35,607</b> (2.72%)	<b>45.00%</b>	<b>21.50%</b>	<b>3.57</b>	<b>00:04:15</b>
4. /admissions-aid/how-apply/application-status 	<b>31,023</b> (2.37%)	<b>24.74%</b>	<b>17.95%</b>	<b>1.52</b>	<b>00:01:47</b>
5. /academics 	<b>30,575</b> (2.33%)	<b>47.47%</b>	<b>19.66%</b>	<b>2.66</b>	<b>00:04:42</b>
6. /admissions-aid/how-apply/graduate 	<b>30,442</b> (2.32%)	<b>30.76%</b>	<b>26.36%</b>	<b>3.05</b>	<b>00:04:38</b>
7. /admissions-aid/newly-admitted-students 	<b>23,080</b> (1.76%)	<b>23.12%</b>	<b>47.34%</b>	<b>1.87</b>	<b>00:03:49</b>
8. /admissions-aid/financial-aid 	<b>19,160</b> (1.46%)	<b>37.22%</b>	<b>27.23%</b>	<b>3.14</b>	<b>00:03:18</b>
9. /admissions-aid/how-apply/transfer 	<b>17,289</b> (1.32%)	<b>41.08%</b>	<b>45.18%</b>	<b>2.40</b>	<b>00:03:32</b>
10. /admissions-aid/contact-us 	<b>14,608</b> (1.11%)	<b>33.27%</b>	<b>63.35%</b>	<b>1.77</b>	<b>00:02:06</b>

# Web Analytics Techniques

**Annotation:** Create annotations to add context to your reports and preserve institutional knowledge.

**Segmentation:** Segment your data to identify insights; don't just look at averages.

**Goals:** Determine how you want users to interact with your website. Then set-up goals to track performance.

**Campaign-Tagging:** 'tag' the links you share to provide information about the context in which you shared them.

**Custom Dimensions:** send your own data to your analytics tool to be incorporated into its reports.

**Internal Site Search Tracking:** configure your analytics tool to receive your visitors search terms.

**Content Grouping:** Define how your content is organized for reporting purposes.

# Analytics Techniques: Annotation

Annotations add context to your analytics reports and preserve institutional knowledge.

Add annotations when:

- a view is created (or becomes effective)
- your analytics configuration changes
- major website content or design changes are made
- technical or tracking issues occur
- marketing campaigns are launched
- there are offline factors that could impact your website performance
- in the case of roll-up properties, when a website is added or removed

# Analytics Techniques: Segmentation

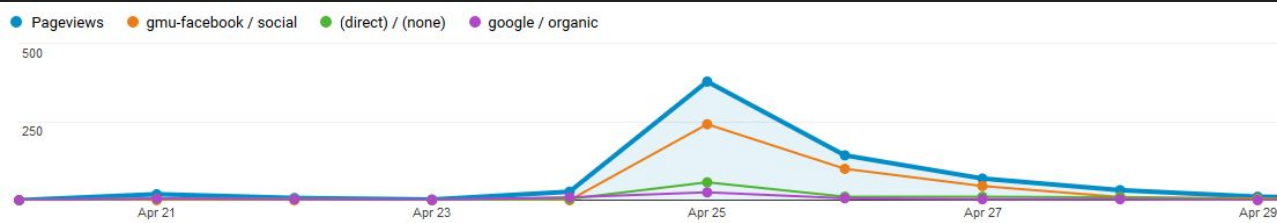
If you don't segment your data, you're only looking at averages.  
*Averages don't visit your website.*

Examples:

In-state vs. out-of-state traffic

Traffic by referral source

On-campus vs. off-campus traffic



<a href="#">/academics/computer-science-and-information-technology</a>		
Sessions: In-State	3,083	<div style="width: 75%;"></div>
Sessions: Out-of-State	3,153	<div style="width: 78%;"></div>
<a href="#">/academics/sustainability</a>		
Sessions: In-State	504	<div style="width: 12%;"></div>
Sessions: Out-of-State	522	<div style="width: 13%;"></div>
<a href="#">/academics/engineering</a>		
Sessions: In-State	2,621	<div style="width: 65%;"></div>
Sessions: Out-of-State	3,762	<div style="width: 93%;"></div>
<a href="#">/academics/law</a>		
Sessions: In-State	889	<div style="width: 22%;"></div>
Sessions: Out-of-State	1,519	<div style="width: 38%;"></div>
<a href="#">/academics/counter-terrorism</a>		
Sessions: In-State	231	<div style="width: 6%;"></div>
Sessions: Out-of-State	674	<div style="width: 17%;"></div>

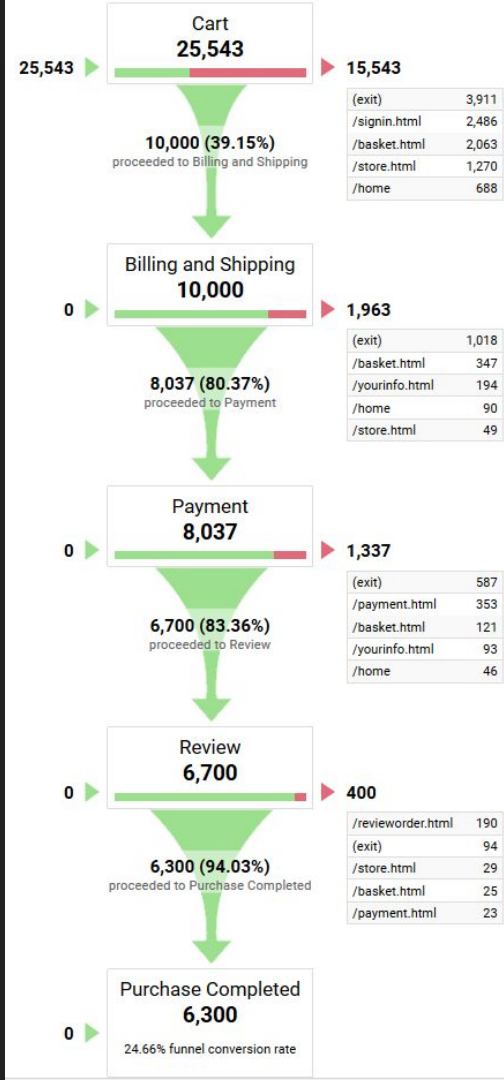
# Analytics Techniques: Goals

Determine what your marketing goals are for your website.

Create corresponding goals in GA to track performance based on real, bottom-line metrics - rather than less-relevant metrics like pageviews or even visits.

Once created, goals are included in GA reports, and you will be able to segment your traffic by goal completions. Do certain marketing efforts (online ads, emails, etc.) result in greater goal completion rates than others?

Goal funnels will help you determine where you are losing people in a process.



# Analytics Techniques: Campaign-Tagging

Campaign Tagging is the practice of including additional information in URLs that you share in your marketing efforts in order to specify how/where the URLs were shared.

It gives you direct control of how you categorize visits to your website resulting from your marketing efforts.

It allows you to track entire marketing campaigns, rather than just click-through rates on individual links.

It gives you access to information about what users who follow specific links are actually doing once they get to your website.

Parameters: medium, source, campaign (optional: content, term).

# Analytics Techniques: Custom Dimensions

Custom dimensions allow you to upload your own information (that your analytics tool wouldn't already know) to be incorporated into your reports.

Examples:

Blog Post Author

Who wrote which blog posts?

Business Unit

In university roll-up: which unit is responsible for which websites?

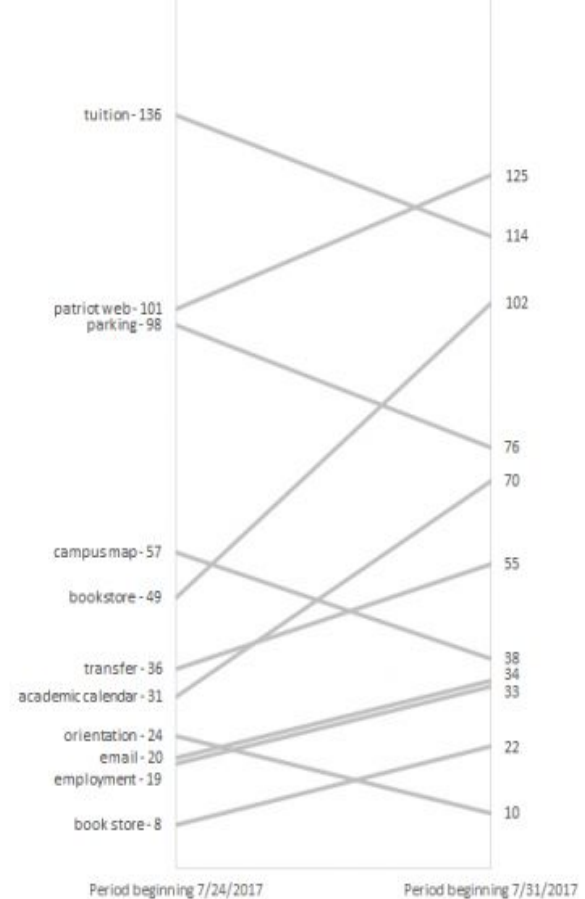
# Analytics Techniques: Internal Site Search Tracking

You can configure Google Analytics to detect what people are searching for on your website. This is invaluable data because it is your actual users literally telling you exactly what they want.

Search terms can indicate interest - or navigation issues.

Trends in search activity can be instructive.

Site Search Trends - Week of 7/31/2017





# Analytics Techniques: Content Grouping

Content grouping allows you to organize your website content (pages) into content groups.

Allows you to aggregate similar content on your website to see how different types of content perform.

# Analytics Techniques: Event Tracking

By default, Google Analytics will only detect pageviews.

If you tell Google Analytics what to look for, it can also detect other types of user activity:

- Clicks on outbound links
- Clicks on email links
- Clicks on file download links
- Form submissions
- Scrolling

# Next Steps?

Implement web analytics. (Consider using Google Tag Manager and the Mason GTM template.)

Set-up 3 basic views (raw, test, production).

Audit your users list. Make sure there is more than one user with "Manage Users" permissions.

Contribute your site's data to the Mason Google Analytics roll-up.

Develop a measurement plan.

Set-up custom goals, segments, and reports.

Annotate your analytics data.

Develop a campaign-tagging strategy and implement campaign-tagging for email, social links, print, and advertising links.

# More Information

Email me: [jmacario@gmu.edu](mailto:jmacario@gmu.edu)

Participate in the Mason Google Analytics Users' Group

Check out the website: [masonanalytics.gmu.edu](http://masonanalytics.gmu.edu)

## Highlighted Posts

<b>Mason-Related Custom Traffic Segments (Google Analytics)</b>	<b>Website 'Event' Tracking Recommendations (Google Analytics)</b>	<b>Mason Google Tag Manager Container Template</b>	<b>How to Create a Google Account Associated with Your Mason Email</b>	<b>Campaign Tagging Recommendations (Google Analytics)</b>
<b>Mason Campaign URL Builder Web App</b>	<b>How to Implement the University Google Analytics Roll-Up</b>			