

Google Analytics 101

UNC Webmasters, April 7, 2016

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What will be covered today

- Should I use Google Analytics?
 - Yes!
- What are some things I can do with Google Analytics?

Google Analytics at The Graduate School

My experience:

- I started using Google Analytics in 2007
- Only one user
- Various hurdles in achieving desired configuration
- Regularly tweaking strategy/configuration

Show of hands:

- Regular users?
- Have it installed, but rarely or never check?
- Don't even know where to begin?
- WordPress? Other platform?

What questions can analytics answer?

- What.....?
- Which.....?
- Where.....?
- How many.....?

What questions can analytics answer?

- How many people are visiting our website?
- Which pages on the website are the most popular?
- What content should have more prominence on the site?
- Which of two design alternatives has better results?
- What is the best time of day for website outages?

What questions can analytics answer?

- Which browser/operating systems/mobile devices should be supported?
- How many visitors are international and what language do they speak?
- How many website visitors are using mobile devices?
- What other websites send traffic to our website?
- Which pages are the slowest to load and how can I speed them up?

What else can analytics do?

- Report 404 pages and broken internal and external links
- Report user's search terms (internal and external)
- Track custom goal completions
- Measure campaign performance
- Generate and send automatic reports to your boss

What questions can analytics *not* answer?

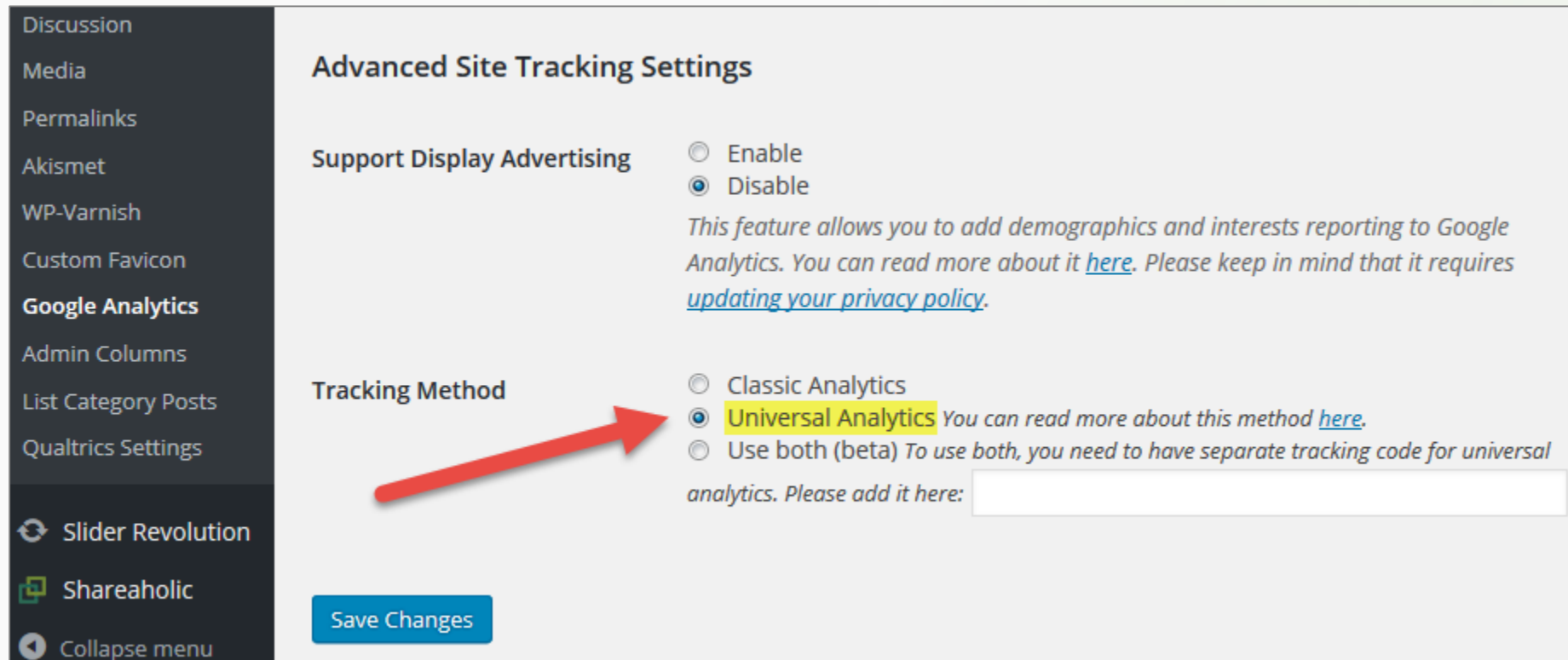
- Why.....?
- GA cannot provide precise data on *every* visitor
 - Noscript/js turned off
 - Cookies get deleted
 - Best for trends, not exact numbers
- Problems with usability or poor content
- GA is one source of data, but other methods may be more appropriate to directly answer these questions (user observations, usability testing, surveys, etc).

Installing Google Analytics

- Tied to an individual's Google account
 - Make sure you have planned for long-term management of the account
 - Can grant edit or view permissions to other users
- Install using WordPress or insert directly into head of HTML pages
- Alternative: Use Google Tag Manager
- Google Tag Assistant (chrome extension) can help debug installation

Installing Google Analytics

- Make sure you are using Universal Analytics (analytics.js), not Classic Analytics (ga.js)



The screenshot shows the 'Advanced Site Tracking Settings' page in a WordPress dashboard. On the left is a dark sidebar menu with items like 'Discussion', 'Media', 'Permalinks', 'Akismet', 'WP-Varnish', 'Custom Favicon', 'Google Analytics', 'Admin Columns', 'List Category Posts', 'Qualtrics Settings', 'Slider Revolution', 'Shareaholic', and 'Collapse menu'. The main content area is titled 'Advanced Site Tracking Settings' and contains two sections: 'Support Display Advertising' and 'Tracking Method'. In the 'Support Display Advertising' section, the 'Disable' radio button is selected. Below it is a paragraph of text explaining the feature and linking to a 'here' link. In the 'Tracking Method' section, the 'Universal Analytics' radio button is selected and highlighted with a yellow background. A red arrow points from the left towards this selected option. Below the radio buttons is another paragraph of text with a 'here' link and a text input field. At the bottom left of the main content area is a blue 'Save Changes' button.

Discussion
Media
Permalinks
Akismet
WP-Varnish
Custom Favicon
Google Analytics
Admin Columns
List Category Posts
Qualtrics Settings
Slider Revolution
Shareaholic
Collapse menu

Advanced Site Tracking Settings

Support Display Advertising Enable
 Disable

This feature allows you to add demographics and interests reporting to Google Analytics. You can read more about it [here](#). Please keep in mind that it requires [updating your privacy policy](#).

Tracking Method Classic Analytics
 Universal Analytics You can read more about this method [here](#).
 Use both (beta) To use both, you need to have separate tracking code for universal analytics. Please add it here:

Save Changes

What does Google Analytics look like?

```
<script>
```

```
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){  
(i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o),  
m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)  
})(window,document,'script','//www.google-analytics.com/analytics.js','ga');
```

```
ga('create','UA-xxxxxxx-1','auto');
```

```
ga('send','pageview');
```

```
</script>
```

Is Google Analytics already installed?

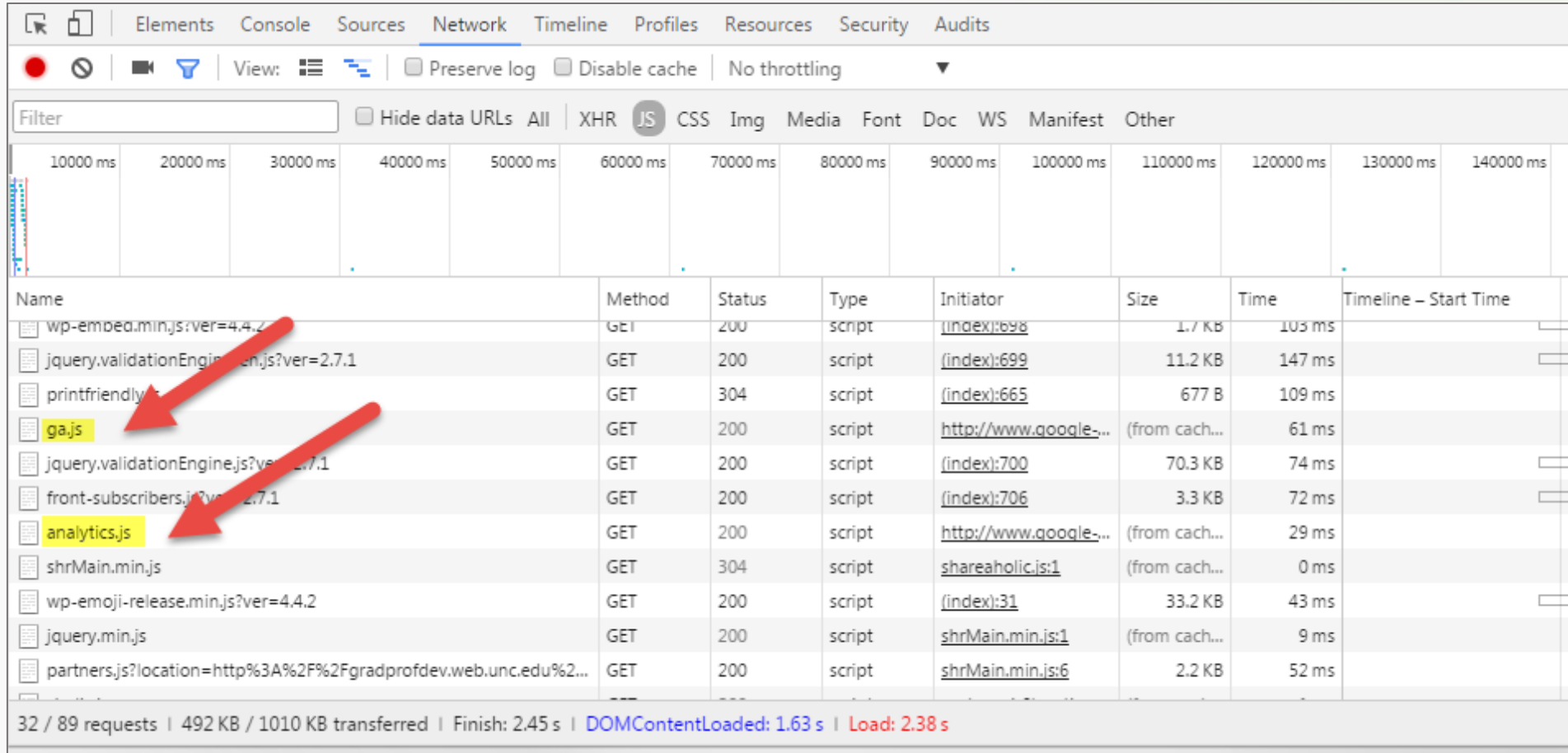
- Open browser developer tools
[CTRL + SHIFT + I] or [COMMAND + OPTION + I]
- Go to Network tab and refresh page
- Look for *analytics.js* or *ga.js*
- If you see a ga.js, you should update your settings

Is Google Analytics Installed?

Name	Method	Status	Type	Initiator	Size	Time	Timeline - Start Time
global.js?ver=4.4.2	GET	304	script	(index):413	153 B	26 ms	
wp-embed.min.js?ver=4.4.2	GET	304	script	(index):414	153 B	29 ms	
wp-emoji-release.min.js?ver=4.4.2	GET	304	script	(index):40	153 B	24 ms	
widgets.js	GET	304	script	twitter.js?ver=4.4.2:1	414 B	31 ms	
analytics.js	GET	304	script	http://www.google-...	72 B	25 ms	
shrMain.min.js	GET	304	script	shareaholic.js:1	473 B	17 ms	
timeline.3eb8c333e11675e747ff9fd316892d5b...	GET	304	script	widgets.js:1	488 B	43 ms	
jquery.min.js	GET	200	script	shrMain.min.js:1	(from cach...	2 ms	
7119710594032553082...back=__twtr.callbacks.tl_i0_7119710594...	GET	200	script	widgets.js:9	7.9 KB	111 ms	
analytics.js	GET	304	script	http://www.google-...	26 B	25 ms	
partners.is?location=http%3A%2F%2Ffnoc.web.unc.edu%2F&can...	GET	200	script	shrMain.min.js:6	2.2 KB	16 ms	

26 / 90 requests | 16.7 KB / 151 KB transferred | Finish: 1.0 min | DOMContentLoaded: 480 ms | Load: 1.52 s

Is Google Analytics Installed?



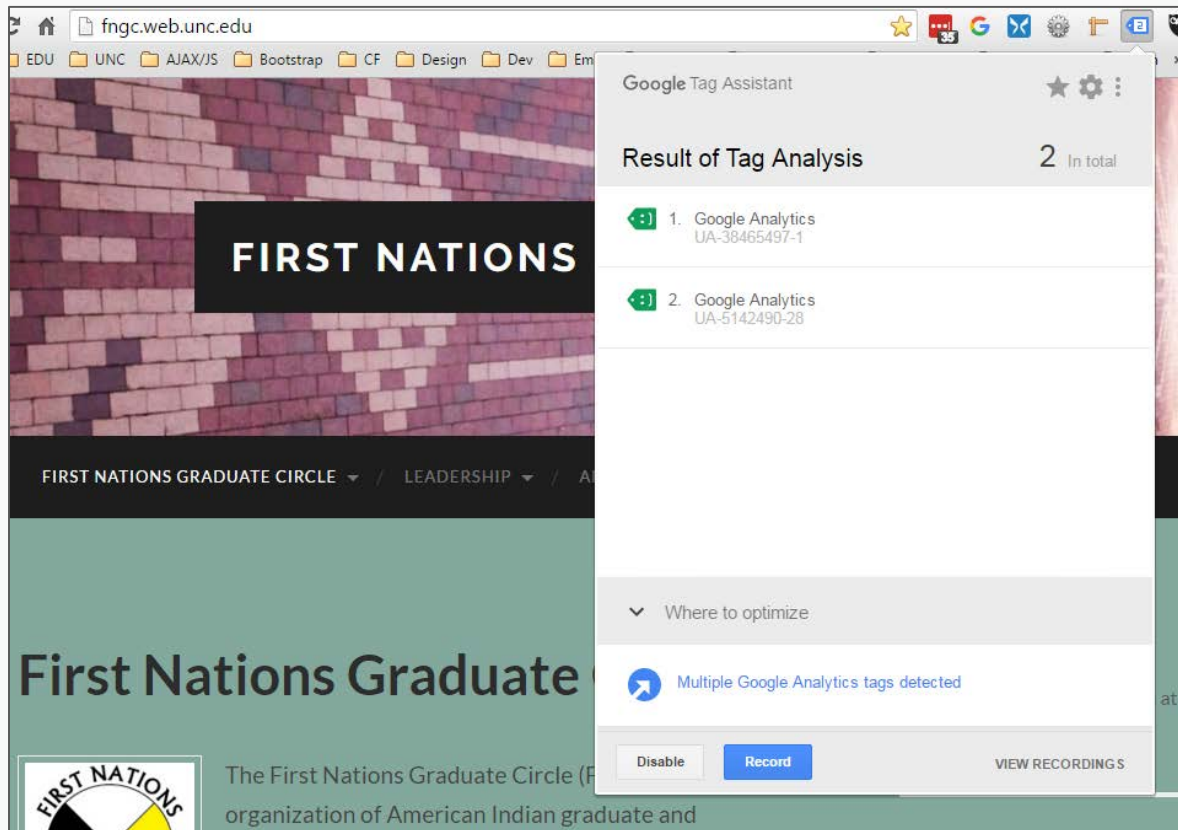
The screenshot shows the Chrome DevTools Network tab with the 'JS' filter selected. The 'Timeline' tab is also visible. The network log shows a list of requests, with 'ga.js' and 'analytics.js' highlighted in yellow. Two red arrows point to these entries. The status bar at the bottom indicates 32 / 89 requests, 492 KB / 1010 KB transferred, and a load time of 2.38 s.

Name	Method	Status	Type	Initiator	Size	Time	Timeline – Start Time
wp-embed.min.js?ver=4.4.2	GET	200	script	(index):698	1.7 KB	103 ms	
jquery.validationEngine.jquery.js?ver=2.7.1	GET	200	script	(index):699	11.2 KB	147 ms	
printfriendly	GET	304	script	(index):665	677 B	109 ms	
ga.js	GET	200	script	http://www.google-...	(from cach...	61 ms	
jquery.validationEngine.js?ver=2.7.1	GET	200	script	(index):700	70.3 KB	74 ms	
front-subscribers.js?ver=2.7.1	GET	200	script	(index):706	3.3 KB	72 ms	
analytics.js	GET	200	script	http://www.google-...	(from cach...	29 ms	
shrMain.min.js	GET	304	script	shareaholic.js:1	(from cach...	0 ms	
wp-emoji-release.min.js?ver=4.4.2	GET	200	script	(index):31	33.2 KB	43 ms	
jquery.min.js	GET	200	script	shrMain.min.js:1	(from cach...	9 ms	
partners.js?location=http%3A%2F%2Fgradprofdev.web.unc.edu%2...	GET	200	script	shrMain.min.js:6	2.2 KB	52 ms	

32 / 89 requests | 492 KB / 1010 KB transferred | Finish: 2.45 s | DOMContentLoaded: 1.63 s | Load: 2.38 s

Google Tag Assistant (chrome extension)

- Chrome extension that helps debug you tracking code



Is Google Analytics Installed?

If your site is part of `sites.unc.edu` or `web.unc.edu`, you might see two tracking codes:

1. Tracking code for entire network
 - UA-5142490-28 (`web.unc.edu`)
 - UA-32420241-1 (`sites.unc.edu`)
2. Tracking code for just your site (if installed)

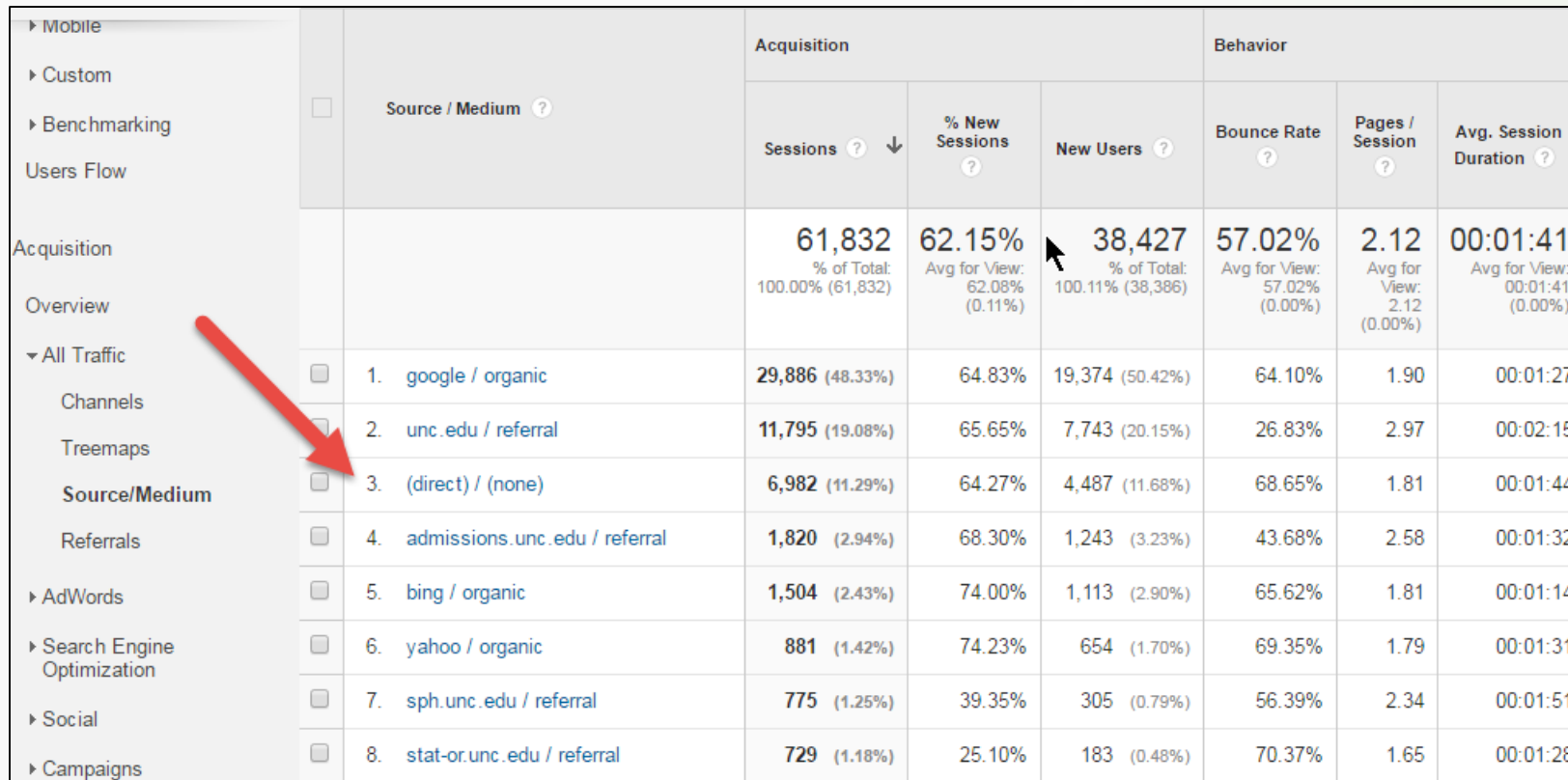
Setup analytics account

- Account → Property → View
- Views
 - Views changes are permanent, duplicate view before changing
 - One master view with all data
 - One with **internal users filtered out**
 - Any other ways you want to break out data

Campaign Tagging

Google Analytics Campaign Tags

Trace the actual source of “Direct Traffic”



The screenshot displays the Google Analytics interface with the 'Source / Medium' filter selected. The table below shows the breakdown of traffic sources, with a red arrow pointing to the '(direct) / (none)' source.

	Source / Medium ?	Acquisition			Behavior			
		Sessions ? ↓	% New Sessions ?	New Users ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	
Acquisition Overview		61,832 % of Total: 100.00% (61,832)	62.15% Avg for View: 62.08% (0.11%)	38,427 % of Total: 100.11% (38,386)	57.02% Avg for View: 57.02% (0.00%)	2.12 Avg for View: 2.12 (0.00%)	00:01:41 Avg for View: 00:01:41 (0.00%)	
▼ All Traffic	<input type="checkbox"/>							
Channels	<input type="checkbox"/>							
Treemaps	<input type="checkbox"/>							
Source/Medium	<input type="checkbox"/>							
Referrals	<input type="checkbox"/>							
▶ AdWords	<input type="checkbox"/>							
▶ Search Engine Optimization	<input type="checkbox"/>							
▶ Social	<input type="checkbox"/>							
▶ Campaigns	<input type="checkbox"/>							
	<input type="checkbox"/>	1. google / organic	29,886 (48.33%)	64.83%	19,374 (50.42%)	64.10%	1.90	00:01:27
	<input type="checkbox"/>	2. unc.edu / referral	11,795 (19.08%)	65.65%	7,743 (20.15%)	26.83%	2.97	00:02:15
	<input type="checkbox"/>	3. (direct) / (none)	6,982 (11.29%)	64.27%	4,487 (11.68%)	68.65%	1.81	00:01:44
	<input type="checkbox"/>	4. admissions.unc.edu / referral	1,820 (2.94%)	68.30%	1,243 (3.23%)	43.68%	2.58	00:01:32
	<input type="checkbox"/>	5. bing / organic	1,504 (2.43%)	74.00%	1,113 (2.90%)	65.62%	1.81	00:01:14
	<input type="checkbox"/>	6. yahoo / organic	881 (1.42%)	74.23%	654 (1.70%)	69.35%	1.79	00:01:31
	<input type="checkbox"/>	7. sph.unc.edu / referral	775 (1.25%)	39.35%	305 (0.79%)	56.39%	2.34	00:01:51
	<input type="checkbox"/>	8. stat-or.unc.edu / referral	729 (1.18%)	25.10%	183 (0.48%)	70.37%	1.65	00:01:28

What is “Direct Traffic”?

- Typed URL into browser
- Bookmarks
- Links in PDF or Word Doc
- Links in desktop email programs
- Links from mobile social media apps
- Some URL shorteners
- HTTP to HTTPS links

Google Analytics Campaign Tags

Google Analytics URL Tagging

Create a URL with special tags for tracking purposes:

- Campaign Source
- Campaign Medium
- Campaign Name

Campaigns: URLs

[http://gradschool.unc.edu/?
utm_source=alumni&
utm_medium=email&
utm_campaign=news_fall16](http://gradschool.unc.edu/?utm_source=alumni&utm_medium=email&utm_campaign=news_fall16)

[http://gradschool.unc.edu/?
utm_source=medschoolupdate&
utm_medium=twitter&
utm_campaign=socialmediaeffort](http://gradschool.unc.edu/?utm_source=medschoolupdate&utm_medium=twitter&utm_campaign=socialmediaeffort)

Campaigns: URL Builder

Tool: URL Builder

Google Analytics URL Builder

Use this tool to create URLs for your [custom campaigns](#). Fill in the form information and click the **Generate URL** button below.

Step 1: Enter the URL of your website.

Website URL: *
(e.g. <http://www.urchin.com/download.html>)

Step 2: Fill in the fields below. **Campaign Source**, **Campaign Medium** and **Campaign Name** should always be used.

Campaign Source: * (referrer: google, citysearch, newsletter4)

Campaign Medium: * (marketing medium: cpc, banner, email)

Campaign Term: (identify the paid keywords)

Campaign Content: (use to differentiate ads)

Campaign Name*: (product, promo code, or slogan)

Step 3

URL builder form

Step 1: Enter the URL of your website.

Website URL *

(e.g. <http://www.urchin.com/download.html>)

Step 2: Fill in the fields below. **Campaign Source**, **Campaign Medium** and **Campaign Name** should always be used.

Campaign Source *

(referrer: google, citysearch, newsletter4)

Campaign Medium *

(marketing medium: cpc, banner, email)

Campaign Term

(identify the paid keywords)

Campaign Content

(use to differentiate ads)

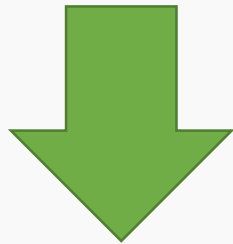
Campaign Name *

(product, promo code, or slogan)

http://gradschool.unc.edu/?utm_source=alumni&utm_medium=email&utm_campaign=news_Fall2016

Use URL shortener or 301 redirection

http://gradschool.unc.edu/?utm_source=alumni&utm_medium=email&utm_campaign=news_fall16



<http://go.unc.edu/Ps79N>

- Use this shortcut link in communications/social media/print advertising

Use embedded link

http://gradschool.unc.edu/?utm_source=alumni&utm_medium=email&utm_campaign=news_fall16



[This is a link in social media or HTML email](#)

Google Analytics Campaign Tags

Marketing/communications/advertising strategies

Money + Effort + Time =
?????

Google Analytics Campaign Tags



Case study: Measure and compare effectiveness of communication methods for academic program

Communication efforts:

- Marketing emails
- Paid advertising on Google and LinkedIn
- Display ads on CH-Transit and on campus digital display screens

Google Analytics Campaign Tags

Measure effectiveness of campaigns/communications

Medium	Sessions	Pages / Session	Avg. Session Duration	% New Sessions	Bounce Rate
	4,571 % of Total: 100.00% (4,571)	3.01 Avg for View: 3.01 (0.00%)	00:02:28 Avg for View: 00:02:28 (0.00%)	69.63% Avg for View: 69.53% (0.16%)	54.93% Avg for View: 54.93% (0.00%)
1. email	52 (1.14%)	2.92	 00:03:15	42.31%	44.23%
2. organic	909 (19.89%)	3.15	00:03:07	53.36%	48.95%
3. referral	1,415 (30.96%)	3.73	00:03:02	73.71%	39.93%
4. (none)	1,299 (28.42%)	3.22	00:02:44	67.13%	56.81%
5. display	148 (3.24%)	1.91	00:01:05	73.65%	64.86%
6. cpc	748 (16.38%)	1.36	 00:00:24	87.17%	86.10%

Rows 1 - 6 of 6







email = emails sent to GRE search service
display = physical ads, digital signage or bus ads
cpc = paid ads in Google and LinkedIn
organic = regular (unpaid) search traffic

Custom Segments

Custom audience segments

- Repeat visitors vs. first-timers
- Mobile vs. Desktop vs. Laptop
- Locations
- Technologies
- Types of visitors
- Visits from specific campaigns
 - Email vs. printed postcard

Custom audience segments

Dd Calculated Metrics <small>BETA</small>	Social Media Traffic
PERSONAL TOOLS & ASSETS	Medium: Display Ads
 Segments	Off Campus Traffic
 Annotations	IE8
 Attribution Models	RDU Metro
 Custom Channel Groupings <small>BETA</small>	Medium: CPC (paid ads)
 Custom Alerts	(not provided) Traffic
 Scheduled Emails	Old IE users
	Current Student?

Name
Campus and Local
(direct)/(none)
IE 7,8, or 9
Desktop Only
On Campus Traffic
Medium: Email
Medium: LI/FB referrals
Medium: email
Social Media Traffic

Custom audience segments

- Non-destructive filters
- Can be used to compare groups together
- Can combine criteria
 - On-campus visits from Android devices
 - Visits from China using IE9

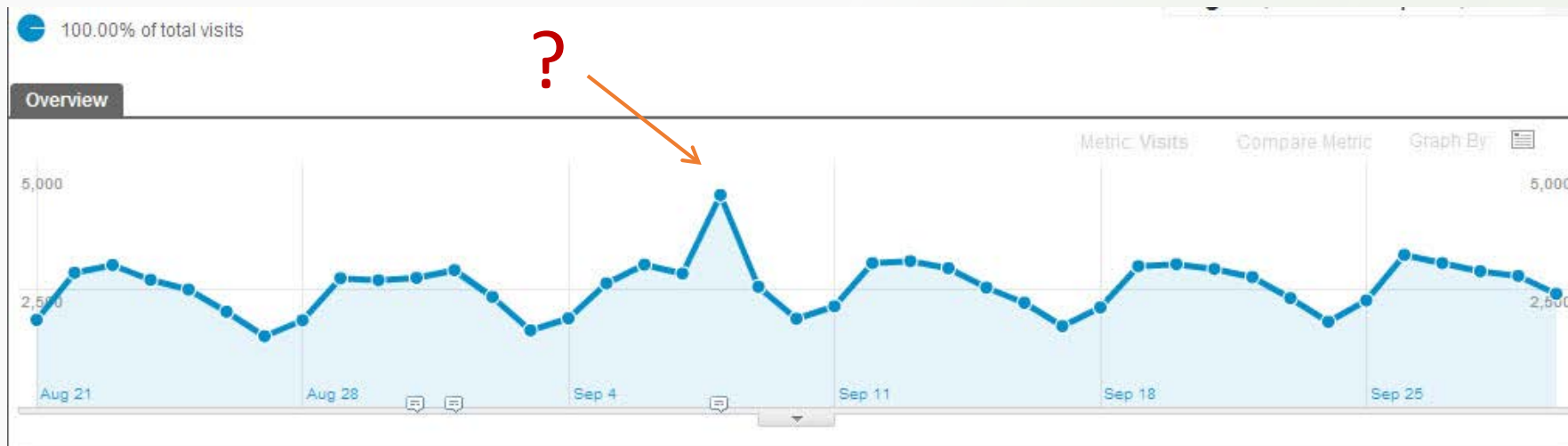
Annotations

Annotations

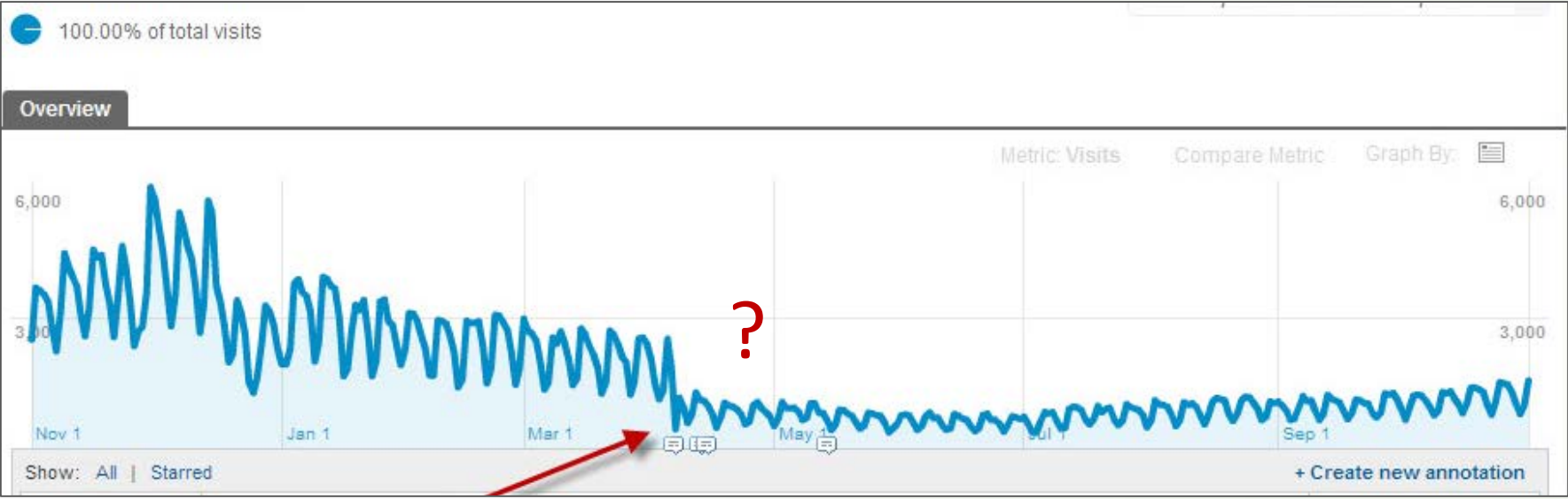
Mark important events which can affect metrics

- Publications, communications, media mentions
- Changes to analytics code
- Campaign events
- Departmental or campus events
- Changes to technology (search provider, cms)

Annotations



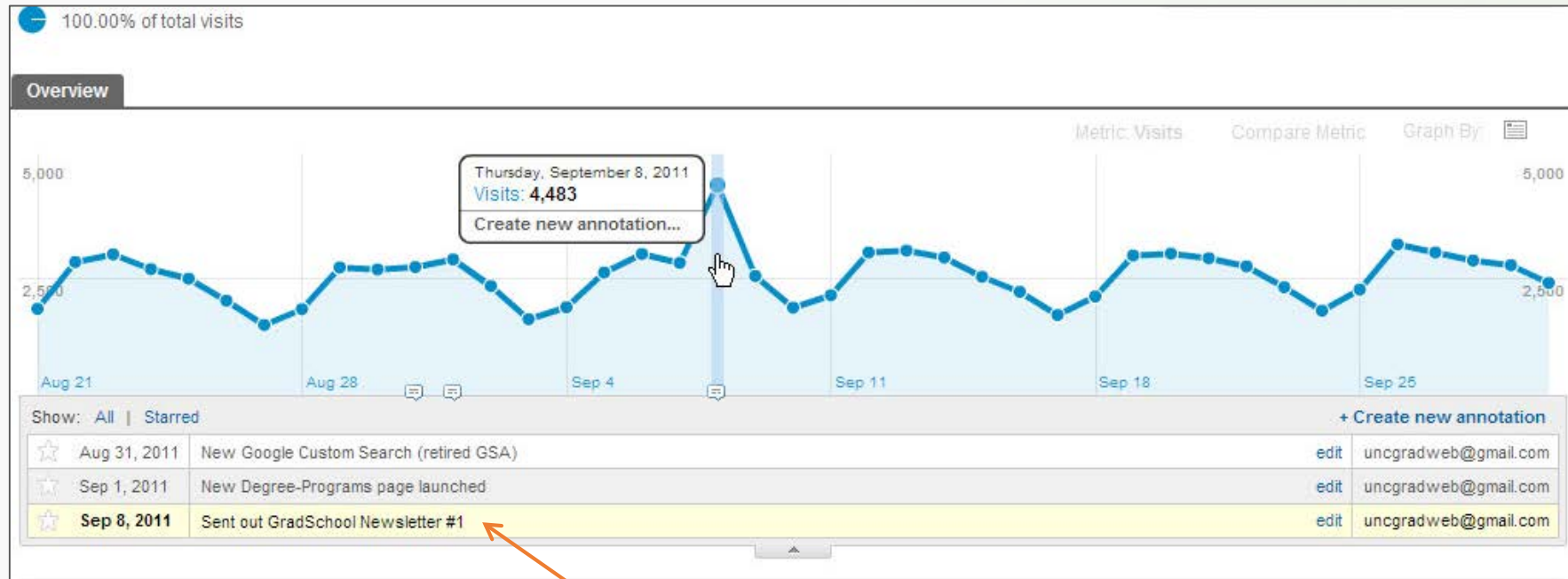
Annotations



Annotations



Annotations



Annotations

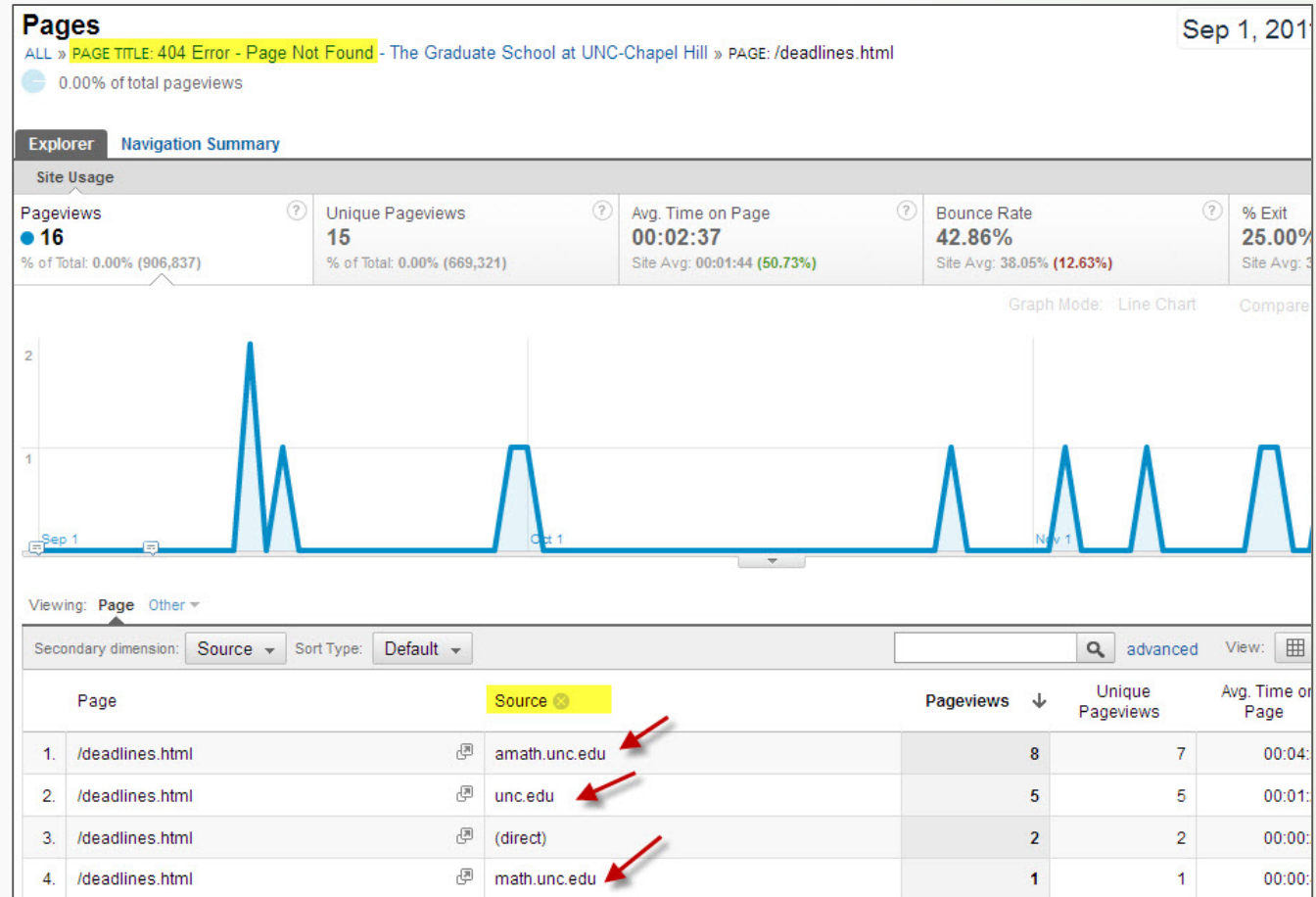


Tracking 404s

Tracking 404 Errors

- Helps identify broken links on OTHER websites that point to your site

Tracking 404 Errors



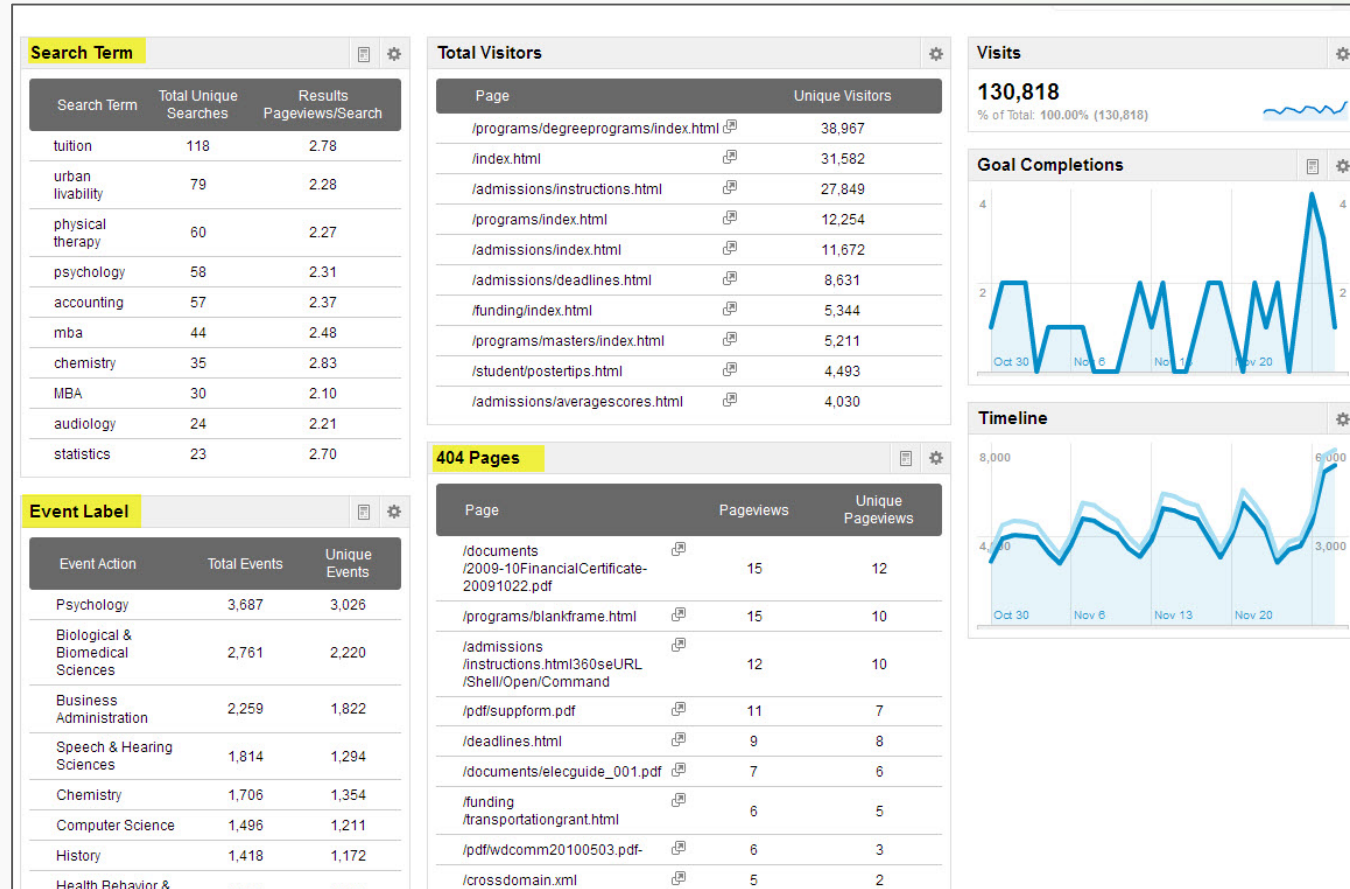
404 Dashboard Widget

The screenshot shows a 'Widget Settings' dialog box for a dashboard widget. The widget is currently set to 'TABLE' view. The configuration includes the following settings:

- Display the following columns:** 'Page', 'Pageviews', and 'Unique Pageviews' are selected.
- Show a table with:** 10 rows.
- Filter this data:** 'Only show' is set to 'Page Title', 'Exactly matching' is selected, and the filter value is '404 Error - Page Not Four'.
- Widget title:** '404 Pages'.
- Link to Report or URL:** 'Content / Site Content / Pages'.

Two red arrows point to the 'Page Title' dropdown and the '404 Error - Page Not Four' filter value. The interface also includes 'Save', 'Cancel', and 'Delete widget' buttons at the bottom.

My Dashboard Display



Tips

- Beware of referral spam
 - Can be reduced with “valid hostname filter” and spam filter
 - *See resource list at end of presentation*
- Make sure analytics code is on EVERY page

Google Analytics 201.....

- Tracking on-page events
 - Slideshow usage
 - Did user watch entire video?
 - Did user download pdf?
 - Did user interact with footer links or sidebar?
- Create custom reports
- Custom dashboards
- Autotracker add-on
- Debugging analytics configuration

Google Analytics 201.....

- Setting and tracking goals in GA
- Internal site search analysis
 - Adjusting search results for key terms
 - Understanding the language of users
- Measuring SEO effectiveness
- Tracking form completions
- Tracking purchases/donations/registrations
 - Can connect revenue in GA

Resources

- [Google Tag Assistant](#)
- [Google Analytics URL builder](#)
- [Definitive Guide To Campaign Tagging in Google Analytics \(Annielytics\)](#)
- [Definitive Guide to Removing Google Analytics Spam \(Analytics Edge\)](#)
- [Higher Ed Analytics Blog](#)
- [Occam's Razor by Google's Avinash Kaushik](#)
- [Google Analytics Training from Lynda.com \(free for UNC employees\)](#)

Questions? Comments?

What do you want to learn to do with Google Analytics data?

Contact me:

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