



JACOBS
UNIVERSITY

Evaluation of tag-based Web Analytics tool

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INTRODUCTION TO PAGE TAGGING TOOL

Page tagging uses an invisible image to detect when a page has been successfully loaded and then uses JavaScript to send information about the page and the visitor back to a remote server. This technology consists of inserting a small JavaScript (which is not allowed to be cached) in every page of a website. This means that every time a visitor opens a page, this JavaScript is activated and the visitor information and actions are saved in a separate file. Advantages of this method are:

- It counts every visit (unless the customer closes the page before the script is loaded) to a website, while log files can be affected by cached pages by the Proxy (the network connection provider) or the user's browser, which can send a page to a visitor without registering a log file in the server. The cached information is lost whenever analyzing log files, reducing the accuracy of the customer's information.
- The JavaScript is not read by crawlers, which generates high amounts of traffic and are not representative of customers' behavior. Crawlers can be excluded from the analysis; however, it is a time consuming task, and many of them are not recognizable.
- The analysis resources are outside the company, i.e., the company does not have to process and save the data internally.

PAGE TAGGING TOOL – GOOGLE ANALYTICS

Google Analytics is a freemium web analytics service offered by Google that tracks and reports website traffic, currently as a platform inside the Google Marketing Platform brand. Google launched the service in November 2005 after acquiring Urchin.

Google Analytics is now the most widely used web analytics service on the Internet. Google Analytics also provides an SDK that allows gathering usage data from iOS and Android Apps, known as Google Analytics for Mobile Apps.

Google Analytics is implemented with "page tags", in this case, called the Google Analytics Tracking Code, which is a snippet of JavaScript code that the website owner adds to every page of the website. The tracking code runs in the client browser when the client browses the page (if JavaScript is enabled in the browser) and collects visitor data and sends it to a Google data collection server as part of a request for a web beacon.

KEY BENEFITS – GOOGLE ANALYTICS

- **Accurate data**
 - Search Analytics reports deliver more accurate reports than the Search Queries report.[citation needed]
 - The reports are up-to-date and provides the latest information possible.
- **Individual page count**
 - Search Analytic reports considers all the links to the same page as single impression.
 - Separate reports are available to track the device type and search type.
- **Image click count more accurate**
 - Search Analytics reports only count clicks as clicks on expanded images in an image search result to your page. The previous Search Queries report counts all the click on an images, expanded or not, in both web & images search.
- **Data consolidated by full domain**
 - Search Analytics reports assign all clicks, impressions, and other search data to a single, complete host name.
 - Subdomains are regarded as separate entities by Search Console and need to be added separately.

EVALUATING WEBSITE USING GOOGLE ANALYTICS

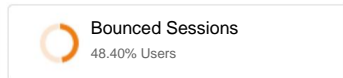
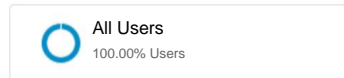
The basis of evaluation is on the metrics and KPI's of Google analytics for the merchandise website. The data is collected over a month period and reports are generated. The following reports are generated and analyzed for the website.

- User Overview
- New vs Returning User
- User Engagement
- User Affinity towards products
- User Demographics
- Acquisition Overview

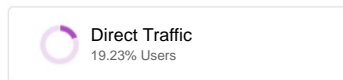
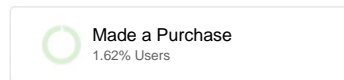
USER OVERVIEW

This is an overview report for all the data collected for one month.

Audience Overview



Sep 20, 2018 - Oct 19,



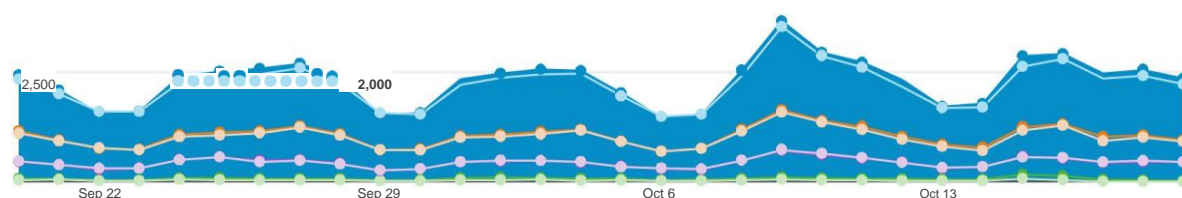
Overview

All Users:
Bounced Sessions:
Made a Purchase:
Direct Traffic:

Users
New Users
Users
New Users
Users
New Users
Users
New Users

5,000

4,000

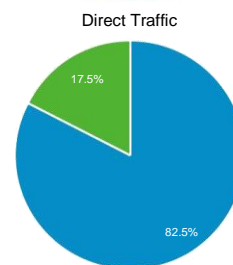
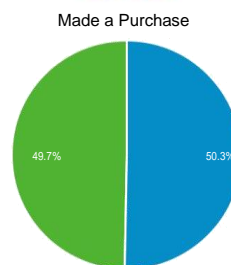
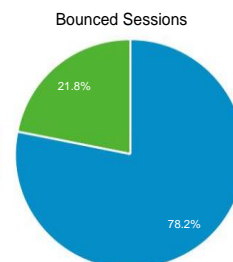
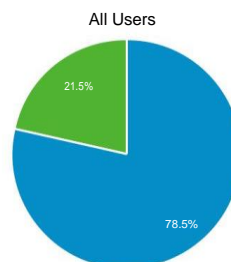


Users
All Users
58,856
Bounced Sessions
28,486
Made a Purchase
954
Direct Traffic
11,317

New Users
All Users
53,164
Bounced Sessions
24,119
Made a Purchase
693
Direct Traffic
10,531

Sessions
All Users
78,904
Bounced Sessions
33,204
Made a Purchase
2,832
Direct Traffic
14,372

■ New Visitor ■ Returning Visitor
































Number of Sessions per User
All Users
1.34
Bounced Sessions
1.17
Made a Purchase
2.97
Direct Traffic
1.27

Pageviews
All Users
360,820
Bounced Sessions
33,204
Made a Purchase
36,812
Direct Traffic
67,137

Pages / Session
All Users
4.57
Bounced Sessions
1.00
Made a Purchase
13.00
Direct Traffic
4.67

Avg. Session Duration
All Users
00:02:52

Bounce Rate
All Users
42.08%

Country	Users	% Users
1. United States		
All Users	27,180	 45.64%
Bounced Sessions	9,781	 33.64%
Made a Purchase	906	 91.79%
Direct Traffic	5,688	 49.86%
2. India		
All Users	4,374	 7.34%
Bounced Sessions	2,696	 9.27%
Made a Purchase	2	 0.20%
Direct Traffic	585	 5.13%
3. United Kingdom		
All Users	3,157	 5.30%
Bounced Sessions	1,904	 6.55%
Made a Purchase	26	 2.63%
Direct Traffic	438	 3.84%
4. Canada		
All Users	1,995	 3.35%
Bounced Sessions	847	 2.91%
Made a Purchase	12	 1.22%
Direct Traffic	378	 3.31%
5. Germany		
All Users	1,395	 2.34%
Bounced Sessions	902	 3.10%
Made a Purchase	1	 0.10%
Direct Traffic	182	 1.60%
6. France		
All Users	1,388	 2.33%
Bounced Sessions	922	 3.17%
Made a Purchase	0	 0.00%
Direct Traffic	240	 2.10%
7. Japan		
All Users	1,377	 2.31%
Bounced Sessions	766	 2.63%
Made a Purchase	4	 0.41%
Direct Traffic	364	 3.19%
8. Taiwan		
All Users	1 156	 1.94%

New vs Returning User

This is a report on analysis of new vs returning users over a month.

New vs Returning

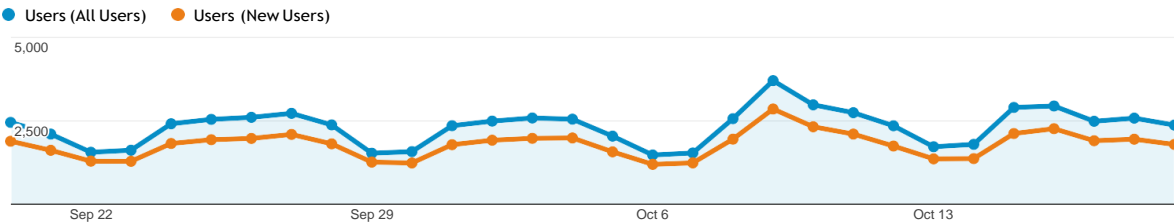
All Users
100.00% Users

New Users
90.50% Users

Sep 20, 2018 - Oct 19, 2018

Explorer

Summary



User Type	Acquisition			Behavior			Conversions		
	Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Transactions	Revenue	Ecommerce Conversion Rate
All Users	58,856 % of Total: 100.00% (58,856)	53,164 % of Total: 100.00% (53,164)	78,904 % of Total: 100.00% (78,904)	42.08% Avg for View: 42.08% (0.00%)	4.57 Avg for View: 4.57 (0.00%)	00:02:52 Avg for View: 00:02:52 (0.00%)	1,026 % of Total: 100.00% (1,026)	\$173,260.84 % of Total: 100.00% (\$173,260.84)	1.30% Avg for View: 1.30% (0.00%)
New Users	53,263 % of Total: 90.50% (58,856)	53,164 % of Total: 100.00% (53,164)	53,164 % of Total: 67.38% (78,904)	45.37% Avg for View: 42.08% (7.81%)	4.17 Avg for View: 4.57 (-8.91%)	00:02:25 Avg for View: 00:02:52 (-15.93%)	376 % of Total: 36.65% (1,026)	\$40,718.69 % of Total: 23.50% (\$173,260.84)	0.71% Avg for View: 1.30% (-45.61%)
1. New Visitor									
All Users	53,263 (78.51%)	53,164 (100.00%)	53,164 (67.38%)	45.37%	4.17	00:02:25	376 (36.65%)	\$40,718.69 (23.50%)	0.71%
New Users	53,263 (100.00%)	53,164 (100.00%)	53,164 (100.00%)	45.37%	4.17	00:02:25	376 (100.00%)	\$40,718.69 (100.00%)	0.71%
2. Returning Visitor									
All Users	14,578 (21.49%)	0 (0.00%)	25,740 (32.62%)	35.30%	5.41	00:03:49	650 (63.35%)	\$132,542.15 (76.50%)	2.53%
New Users	0 (0.00%)	0 (0.00%)	0 (0.00%)	0.00%	0.00	00:00:00	0 (0.00%)	\$0.00 (0.00%)	0.00%

Rows 1 - 2 of 2

USER ENGAGEMENT

The report is on number of session duration by individual user and page views distinguished at new vs all users.



Engagement



All Users
100.00% Users (100.00% Sessions)



New Users
90.50% Users (67.38% Sessions)

Sep 20, 2018 - Oct 19, 2018

Distribution

Session Duration

	Sessions	Pageviews
All Users	78,904 % of Total: 100.00% (78,904)	360,820 % of Total: 100.00% (360,820)
New Users	53,164 % of Total: 67.38% (78,904)	221,444 % of Total: 61.37% (360,820)

Session Duration	Sessions	Pageviews
0-10 seconds		
All Users	36,816	40,915
New Users	26,259	28,723
11-30 seconds		
All Users	7,055	20,144
New Users	4,485	12,096
31-60 seconds		
All Users	6,790	25,980
New Users	4,594	16,622
61-180 seconds		
All Users	11,542	67,557
New Users	7,856	44,567
181-600 seconds		
All Users	10,202	103,531
New Users	6,439	64,630
601-1800 seconds		
All Users	5,459	76,558
New Users	3,038	42,865
1801+ seconds		
All Users	1,040	26,135
New Users	493	11,941

USER AFFINITY TOWARDS PRODUCTS

Interests: Affinity Categories (reach)

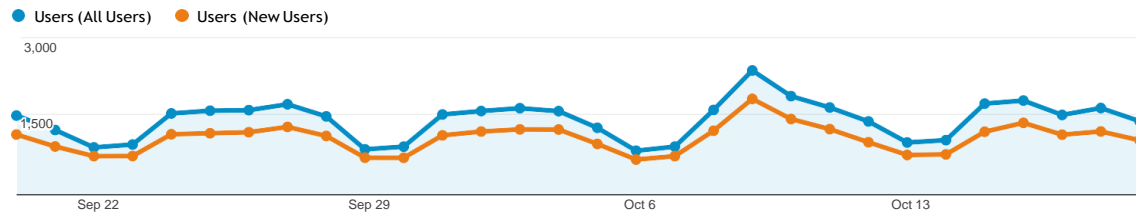
All Users
59.47% Users

New Users
53.03% Users

Sep 20, 2018 - Oct 19, 2018

Explorer

Summary

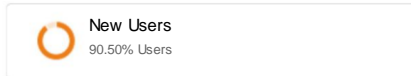
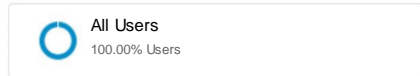


Affinity Category (reach)	Users	Users
All Users	35,002 % of Total: 59.47% (58,856)	35,002 % of Total: 59.47% (58,856)
New Users	31,211 % of Total: 53.03% (58,856)	31,211 % of Total: 53.03% (58,856)
1. Shoppers/Value Shoppers		
All Users	24,653	3.35%
New Users	21,982	3.33%
2. Media & Entertainment/Movie Lovers		
All Users	23,373	3.18%
New Users	20,864	3.16%
3. Technology/Technophiles		
All Users	23,148	3.15%
New Users	20,593	3.12%
4. Media & Entertainment/Music Lovers		
All Users	21,485	2.92%
New Users	19,238	2.92%
5. Lifestyles & Hobbies/Business Professionals		
All Users	20,652	2.81%
New Users	18,242	2.77%
6. Sports & Fitness/Health & Fitness Buffs		
All Users	19,255	2.62%
New Users	17,050	2.59%
7. Lifestyles & Hobbies/Shutterbugs		
All Users	18,065	2.46%
New Users	16,045	2.43%

USER DEMOGRAPHICS

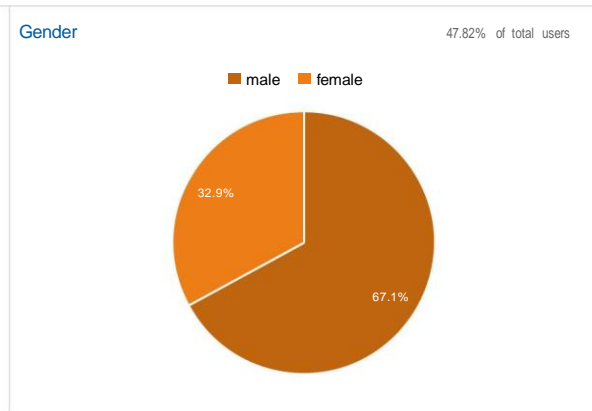
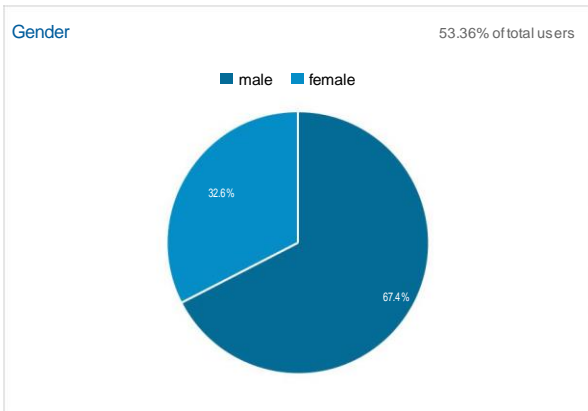
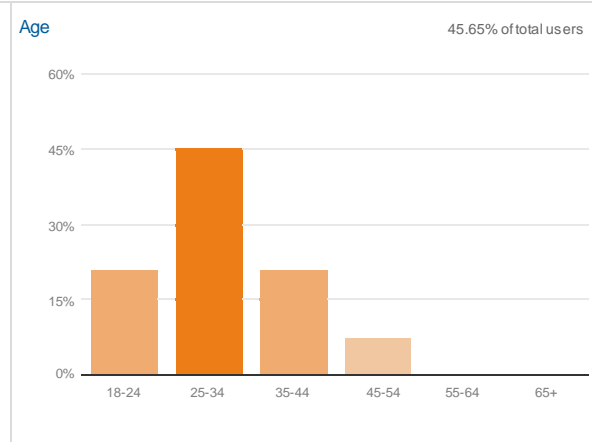
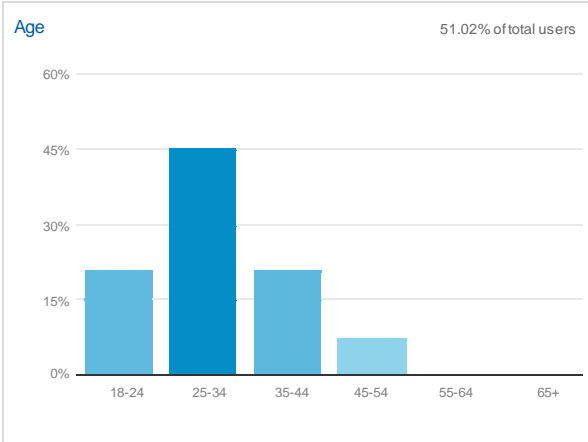
This reports points out the demographics of users

Demographics: Overview



Sep 20, 2018 - Oct 19, 2018

Key Metric:



ACQUISITION OVERVIEW

This report shows the way the user is acquired

Acquisition Overview

All Users
100.00% Users

Oct 13, 2018 - Oct 19, 2018

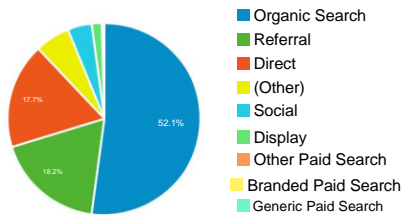
Primary Dimension:

Top Channels

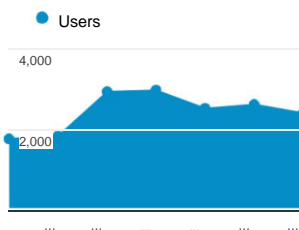
Conversion:

eCommerce

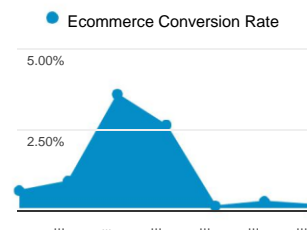
Top Channels



Users



Conversions



	Acquisition			Behavior			Conversions		
	Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Ecommerce Conversion Rate	Transaction...	Revenue
	15,041	12,641	19,313	39.91%	4.65	00:03:00	1.27%	246	\$56,055.86
1 Organic Search	8,231			47.24%			0.68%		
2 Referral	2,882			21.49%			3.25%		
3 Direct	2,800			32.46%			1.22%		
4 (Other)	925			43.43%			0.47%		
5 Social	626			60.69%			0.00%		
6 Display	274			71.35%			0.58%		
7 Other Paid Search	47			38.60%			0.00%		
8 Branded Paid Se...	13			27.78%			0.00%		
9 Generic Paid Sea...	5			80.00%			0.00%		

LIMITATIONS

- There are many ad filtering programs and extensions (such as Firefox's Adblock, and NoScript) and the mobile phone app (such as Disconnect Mobile) that can block the Google Analytics Tracking Code. This prevents some traffic and users from being tracked and leads to holes in the collected data.
- There also some privacy networks like Tor that mask the user's actual location and present inaccurate geographical data.
- Also lastly some users do not have JavaScript-enabled/capable browsers or turn this feature off which prevent them from being tracked.
- The largest potential impact on data accuracy comes from users deleting or blocking Google Analytics cookies. Without cookies being set, Google Analytics cannot collect data. Any individual web user can block or delete cookies resulting in the data loss of those visits for Google Analytics users. Website owners can encourage users not to disable cookies, for example, by making visitors more comfortable using the site through posting a privacy policy.

REFERENCES

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- Kaushik, Avinash (2009) Web Analytics 2.0 - The Art of Online Accountability and Science of Customer Centricity.
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- <https://web.archive.org/web/20160306092846/http://cerebromarketing.us/how-goals-work-in-google-analytics-and-adwords/>