

# Google Analytics








Project: Navigating,  
Reports, & Dashboards



# Part One: Primary Views & Filters

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# 1. Best Practice Check: Three Primary Views

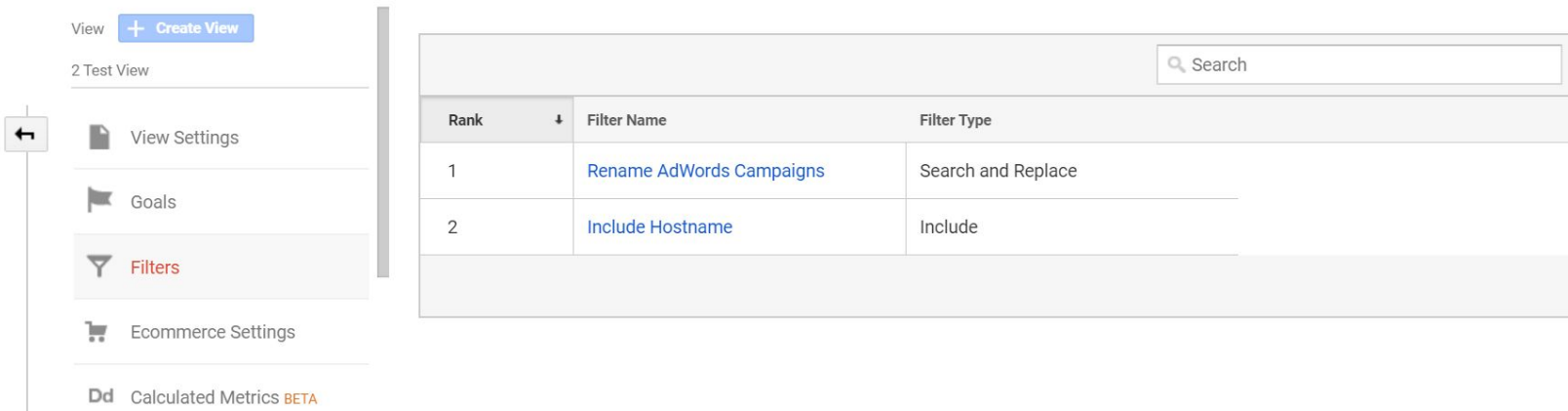
<div>All Favorites Recents</div> <div>    </div> <div>Search</div> <div>Visit Platform Home</div>		
All accounts		
Analytics Accounts	Properties & Apps	Views
Demo Account 54516992 >	Google Merchand... UA-54516992-1 >	1 Master View 92320289 ✓ ☆
	Attribution Projects	2 Test View 92324711 ☆
	Google Merchandise ... 1839269076	3 Raw Data View 90822334 ☆
	Google Merchandise ... 1864999626	

*I am using the Google Merchandise Store Demo Account. These three views already exist.*

## 2. Best Practice Check: Filtering Internal Traffic

ADMIN

USER



View [+ Create View](#)

2 Test View

[View Settings](#)

[Goals](#)

[Filters](#)

[Ecommerce Settings](#)

[Calculated Metrics BETA](#)

Rank	Filter Name	Filter Type
1	<a href="#">Rename AdWords Campaigns</a>	Search and Replace
2	<a href="#">Include Hostname</a>	Include

*I don't have access to create this filter and it does not already exist. The screenshot shows where the filter could be added.*

*Steps necessary to create the filter:*

1. Add a new filter and name it as *Exclude Internal IP Addresses*
2. Select Filter Type as *Custom*
3. Select *Exclude* and put *IP Address* in Filter Field
4. In Filter Pattern, we have to generate a regular expression to express the IP range. A utility called *Regexip* can be used for this purpose.
5. Save the Filter and apply it to the Test View.
6. Check the data for 7 to 10 days before applying to the Main View.

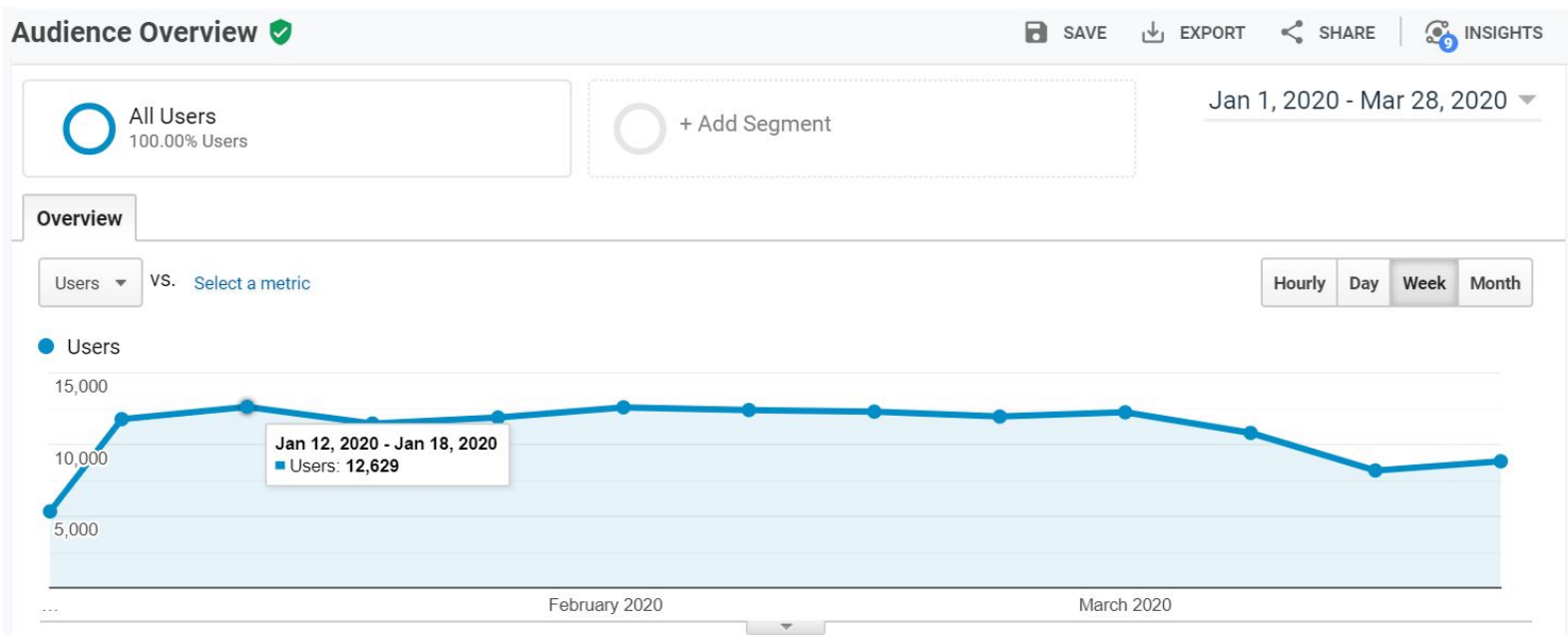


# Data Exploration

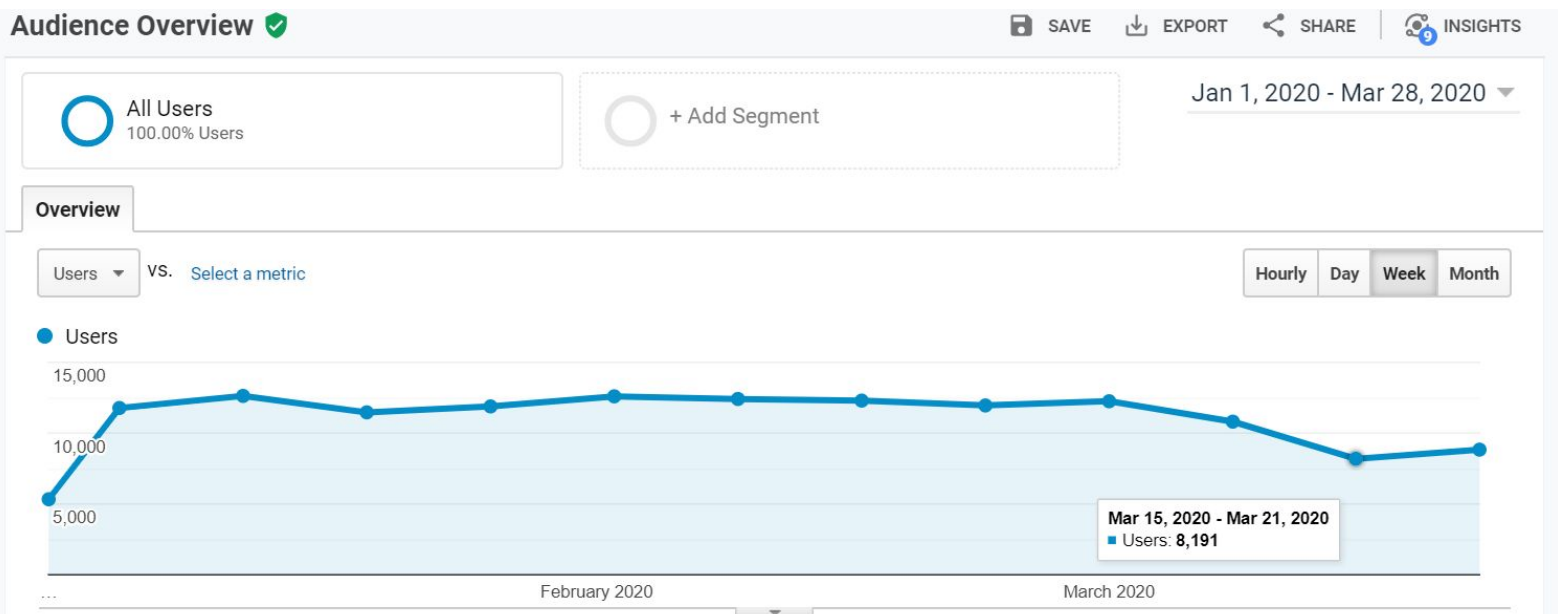
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# Standard Display - Audience

From the Audience Overview Report, select a three month time period you would like to explore. Which week had the most visitors, and which week had the fewest visitors to your site?



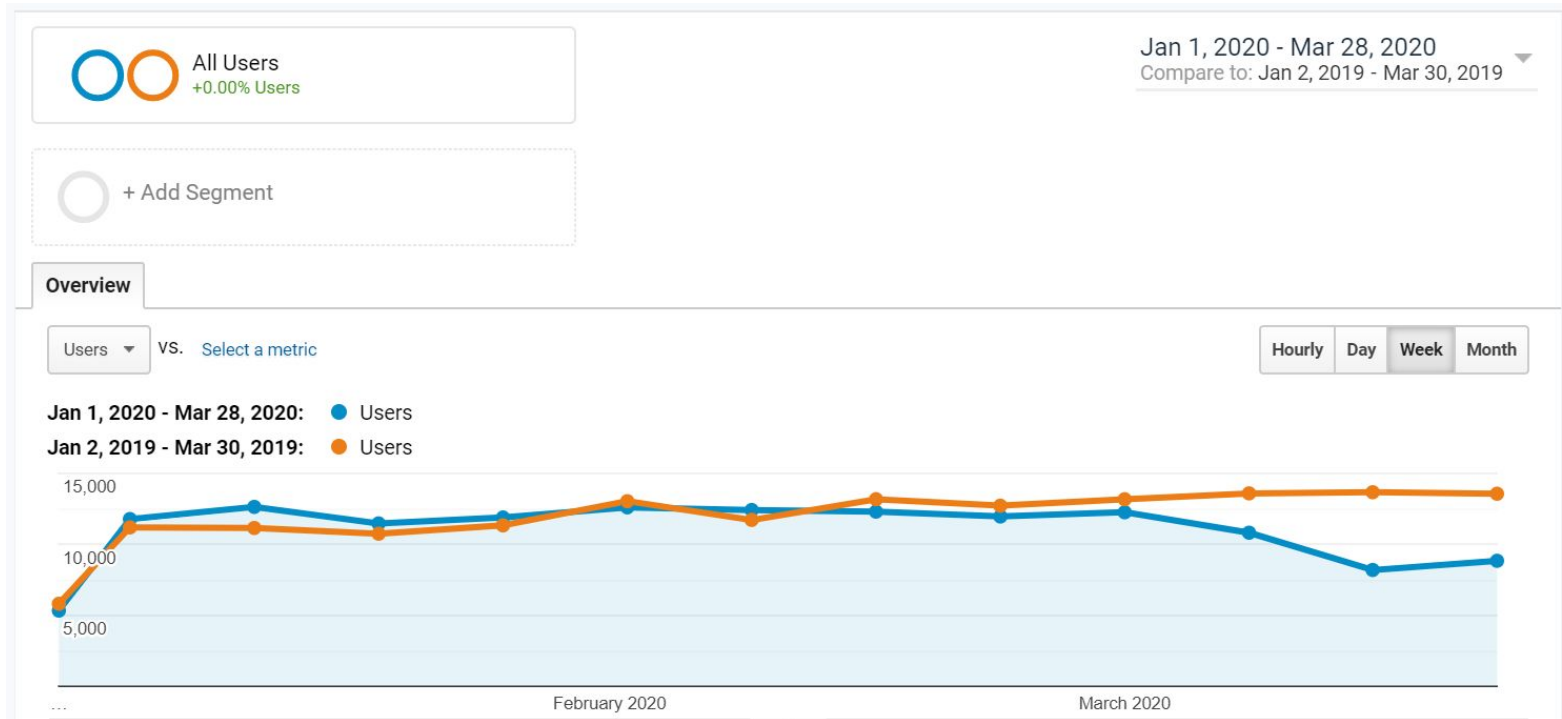
*The week of January 12th had the most visitors.*



*The week of March 15th had the lowest visitors.*

# Standard Display - Audience

Do you have any ideas why certain trends are associated with these specific weeks?



*The audience overview report of the previous slide displays that the number of users are declining in March, compared to January and February. The ongoing COVID-19 crisis could be a reason for this trend. To support this idea, another graph is created for the same time period but for 2019. From the screenshot above, the number of users are found to increase in March, compared to the last two months in 2019. Therefore, it can be commented that users are visiting the store less due to the COVID-19 situation.*

# Standard Display: Acquisition

During the three month period you've selected, excluding *Direct* and (*Other*), which channels had the highest and lowest bounce rates and the highest and lowest eCommerce conversion rates? What do these metrics mean, based on your experience?

Primary Dimension: Default Channel Grouping Source / Medium Source Medium Other										
Plot Rows	Secondary dimension	Sort Type: Default	Advanced Filter ON							
Default Channel Grouping	Acquisition			Behavior			Conversions eCommerce			
	Users ?	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Ecommerce Conversion Rate ?	Transactions ?	Revenue ?	
	106,324 % of Total: 81.48% (130,492)	100,227 % of Total: 80.16% (125,041)	138,681 % of Total: 80.93% (171,365)	49.77% Avg for View: 47.06% (5.75%)	4.03 Avg for View: 4.18 (-3.66%)	00:02:38 Avg for View: 00:02:45 (-4.50%)	0.10% Avg for View: 0.12% (-14.45%)	144 % of Total: 69.23% (208)	\$8,042.19 % of Total: 68.06% (11,817.19)	
1. Organic Search	80,599 (72.15%)	74,401 (74.23%)	97,943 (70.62%)	53.34%	3.60	00:02:22	0.13%	131 (90.97%)	\$7,219.29 (89.77%)	
2. Referral	17,584 (15.74%)	13,724 (13.69%)	25,145 (18.13%)	31.93%	6.09	00:04:02	<0.01%	1 (0.69%)	\$41.80 (0.52%)	
3. Social	4,930 (4.41%)	4,683 (4.67%)	5,283 (3.81%)	57.90%	3.43	00:01:26	0.06%	3 (2.08%)	\$291.40 (3.62%)	
4. Affiliates	4,299 (3.85%)	3,920 (3.91%)	4,997 (3.60%)	60.12%	2.38	00:02:13	0.00%	0 (0.00%)	\$0.00 (0.00%)	
5. Paid Search	2,270 (2.03%)	1,685 (1.68%)	3,032 (2.19%)	30.77%	6.03	00:03:41	0.30%	9 (6.25%)	\$489.70 (6.09%)	
6. Display	2,031 (1.82%)	1,814 (1.81%)	2,281 (1.64%)	76.55%	2.15	00:00:43	0.00%	0 (0.00%)	\$0.00 (0.00%)	
Show rows: 10 Go to: 1 1 - 6 of 6										

*Display had the highest bounce rate (76.55%).*

*Paid Search had the lowest bounce rate (30.77%).*

*Paid Search had the highest ecommerce conversion rate (0.30%).*

*Display and Affiliate had the lowest ecommerce conversion rate (0.00%).*



# Standard Display: Acquisition

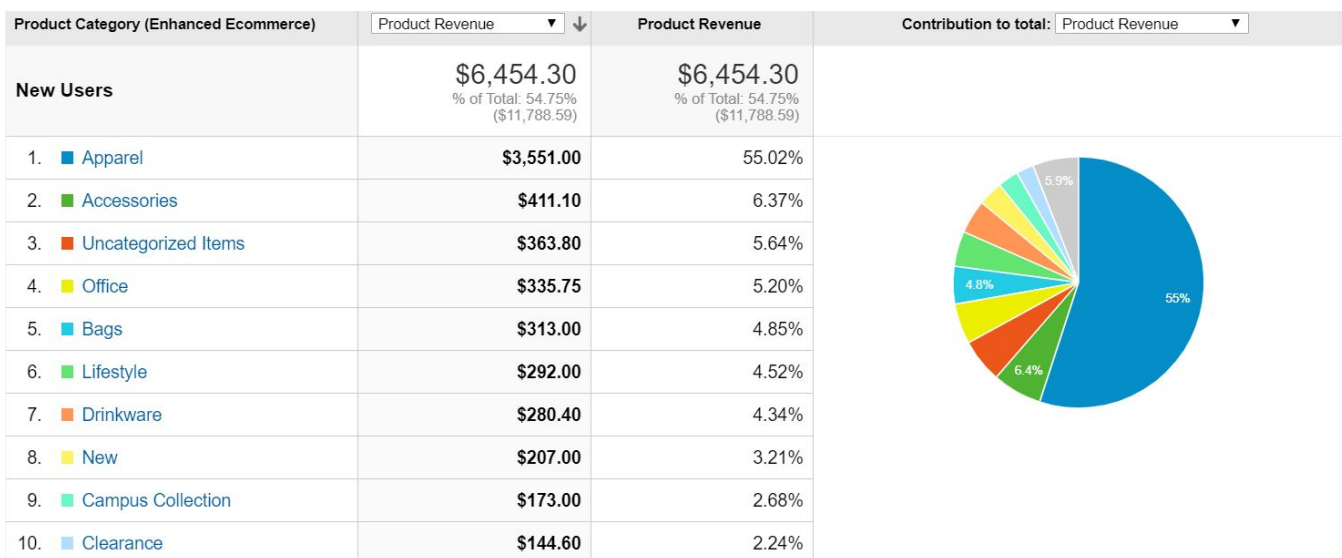
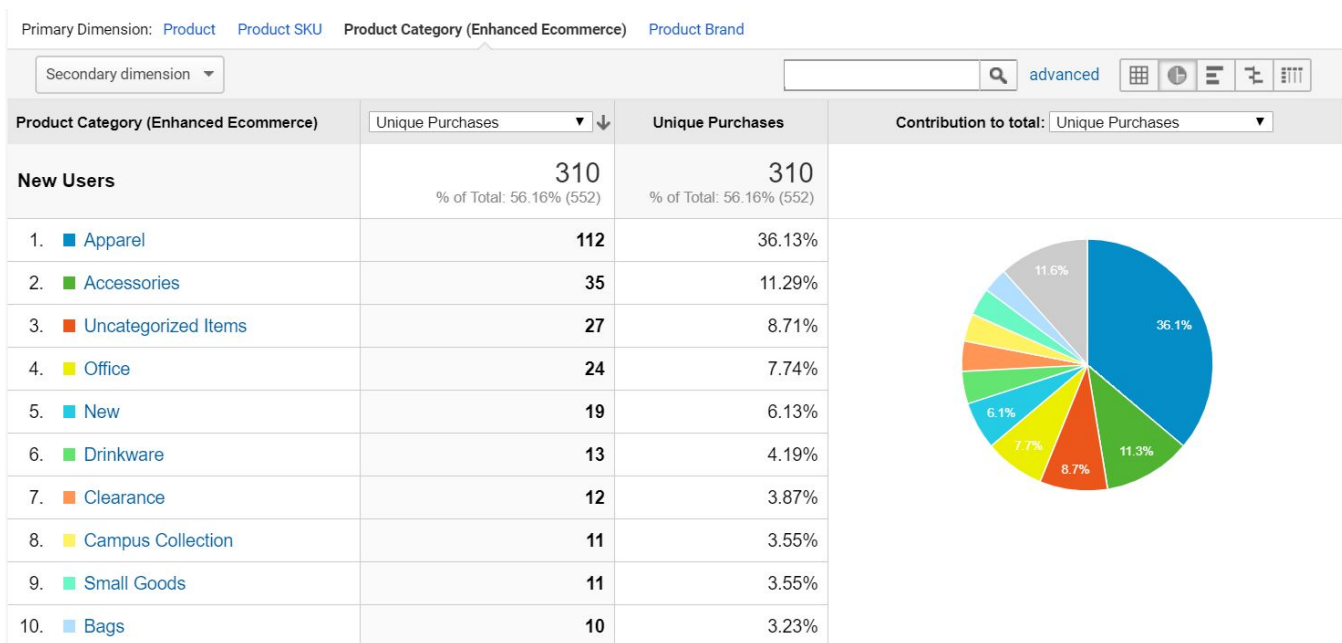
During the three month period you've selected, excluding *Direct* and (*Other*), which channels had the highest and lowest bounce rates and the highest and lowest eCommerce conversion rates? What do these metrics mean, based on your experience?

**Bounce Rate:** *It is the percentage of single-page sessions where a person leaves the site from the entrance page without making any interaction. Bouncing can happen when a visitor does not find the landing page relevant or interesting enough to get engaged with, and immediately leaves the site. If the bounce rate of a site is above 55%, then the landing pages should be redesigned to lower the rate.*

**Ecommerce Conversion Rate:** *It is the percentage of sessions that resulted in an e-commerce transaction. This value depends on the effectiveness of your marketing and site design. To achieve a targeted conversion rate, the marketing has to deliver an audience primed to buy. At the same time, the site design needs to make the purchasing experience easy for the users.*

# Percentage Display: Conversion

During the three month period you've selected, which Product Category contributed the highest number of unique purchases for New Users and which Product Category was responsible for the largest percentage of revenue for New Users? (Screenshot(s) only; no elaboration required.)



# Comparison Display: Behavior

For traffic from All Users between the start and end of your three month period, please provide a comparison report showing Site Speed Page timings for our top ten pages (based on pageviews) and identify any potential troublespots.

Primary Dimension: **Page** Page Title Content Grouping: none Other

Secondary dimension Sort Type: Default

Pageviews Avg. Page Load Time (sec)  
(compared to site average)

720,270 4.16  
% of Total: 100.00% (720,270) Avg for View: 4.16 (0.00%)

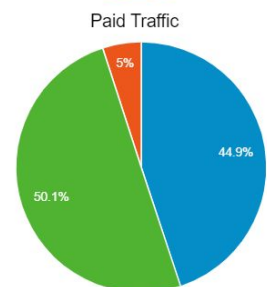
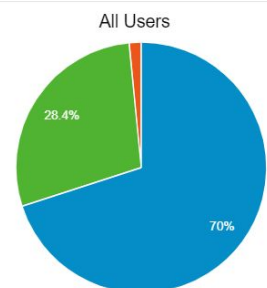
1.	/home	145,695	-5.46%
2.	/store.html	52,788	17.83%
3.	/basket.html	34,932	-29.98%
4.	/store.html/quickview	32,149	45.91%
5.	/google+redesign/apparel/mens/quickview	29,231	-46.13%
6.	/google+redesign/apparel/mens	24,754	-9.08%
7.	/google+redesign/new	24,069	-16.30%
8.	/google+redesign/shop+by+brand/youtube	20,753	39.84%
9.	/google+redesign/apparel	19,185	-21.75%
10.	/signin.html	17,780	-45.84%

Show rows: 10 Go to: 1 1 - 10 of 813

# Percentage Display: Audience

Please go into the Audience → Overview → Mobile report and provide a screenshot or screenshots that show the following: Between the start and end of the three month period you've chosen, please provide percentage charts (pie charts) that show what percentage of All Users came from mobile, desktop, and tablet devices and what percentage of Paid Traffic Users came from mobile, desktop, and tablet devices.

All Users		131,059 % of Total: 100.00% (131,059)	131,059 % of Total: 100.00% (131,059)
Paid Traffic		4,153 % of Total: 3.17% (131,059)	4,153 % of Total: 3.17% (131,059)
1. <span style="color: blue;">■</span> desktop			
All Users	91,416	70.02%	
Paid Traffic	1,866	44.91%	
2. <span style="color: green;">■</span> mobile			
All Users	37,118	28.43%	
Paid Traffic	2,082	50.11%	
3. <span style="color: orange;">■</span> tablet			
All Users	2,023	1.55%	
Paid Traffic	207	4.98%	





# Segmentation

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# Audience Segment: Characteristic

Country ?	Acquisition			Behavior			Conversions <span>eCommerce ▾</span>		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Transactions ?	Revenue ?	Ecommerce Conversion Rate ?
<b>Sessions with Conversions</b>	13,232 % of Total: 10.14% (130,492)	9,648 % of Total: 7.71% (125,207)	15,981 % of Total: 9.33% (171,365)	0.04% Avg for View: 47.06% (-99.92%)	20.72 Avg for View: 4.18 (395.20%)	00:14:09 Avg for View: 00:02:45 (413.95%)	208 % of Total: 100.00% (208)	\$11,817.19 % of Total: 100.00% (\$11,817.19)	1.30% Avg for View: 0.12% (972.30%)
1.  United States	7,996 (59.87%)	5,593 (57.97%)	9,986 (62.49%)	0.03%	21.46	00:13:41	189 (90.87%)	\$9,807.35 (82.99%)	1.89%
2.  Canada	641 (4.80%)	470 (4.87%)	726 (4.54%)	0.00%	19.64	00:16:23	4 (1.92%)	\$239.45 (2.03%)	0.55%
3.  India	564 (4.22%)	448 (4.64%)	608 (3.80%)	0.00%	18.37	00:11:53	0 (0.00%)	\$0.00 (0.00%)	0.00%
4.  United Kingdom	389 (2.91%)	274 (2.84%)	427 (2.67%)	0.00%	17.33	00:12:33	5 (2.40%)	\$409.00 (3.46%)	1.17%
5.  Taiwan	254 (1.90%)	184 (1.91%)	300 (1.88%)	0.00%	21.19	00:14:16	2 (0.96%)	\$239.60 (2.03%)	0.67%
6.  France	250 (1.87%)	165 (1.71%)	280 (1.75%)	0.00%	19.69	00:21:17	0 (0.00%)	\$0.00 (0.00%)	0.00%
7.  Japan	248 (1.86%)	190 (1.97%)	284 (1.78%)	0.00%	20.52	00:15:11	1 (0.48%)	\$437.70 (3.70%)	0.35%
8.  Germany	230 (1.72%)	188 (1.95%)	253 (1.58%)	0.00%	19.40	00:12:50	0 (0.00%)	\$0.00 (0.00%)	0.00%
9.  Brazil	186 (1.39%)	152 (1.58%)	191 (1.20%)	0.00%	21.28	00:16:01	0 (0.00%)	\$0.00 (0.00%)	0.00%
10.  Singapore	180 (1.35%)	131 (1.36%)	211 (1.32%)	0.00%	18.64	00:15:21	0 (0.00%)	\$0.00 (0.00%)	0.00%

This Geo Location report shows that the highest number of sessions with conversions were originated from the United States in the three months period (Jan 01,2020 to Mar 28, 2020). Now, to focus on the conversions just in the US, a new segment is created on the segment builder for the US. Also, Mobile is added as a device category under Technology to specify an audience characteristic. The new segment is defined as Sessions with Conversions USA Mobile Device.

<input type="checkbox"/>	Default Channel Grouping	Acquisition			Behavior			Conversions <span>eCommerce ▾</span>		
		Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Ecommerce Conversion Rate ?	Transactions ?	Revenue ?
<input type="checkbox"/>	<b>Sessions with Conversions USA Mobile Device</b>	1,214 % of Total: 0.93% (130,492)	954 % of Total: 0.76% (125,207)	1,372 % of Total: 0.80% (171,365)	0.07% Avg for View: 47.06% (-99.85%)	20.71 Avg for View: 4.18 (394.95%)	00:12:40 Avg for View: 00:02:45 (360.18%)	6.85% Avg for View: 0.12% (5,544.59%)	94 % of Total: 45.19% (208)	\$5,295.80 % of Total: 44.81% (\$11,817.19)
<input type="checkbox"/>	1. Organic Search	1,016 (82.53%)	797 (83.54%)	1,136 (82.80%)	0.09%	20.58	00:12:37	7.39%	84 (89.36%)	\$4,608.00 (87.01%)
<input type="checkbox"/>	2. Paid Search	125 (10.15%)	84 (8.81%)	143 (10.42%)	0.00%	20.40	00:13:48	4.90%	7 (7.45%)	\$429.00 (8.10%)
<input type="checkbox"/>	3. Social	34 (2.76%)	28 (2.94%)	34 (2.48%)	0.00%	18.21	00:11:01	5.88%	2 (2.13%)	\$217.00 (4.10%)
<input type="checkbox"/>	4. Referral	25 (2.03%)	23 (2.41%)	26 (1.90%)	0.00%	20.65	00:13:20	3.85%	1 (1.06%)	\$41.80 (0.79%)
<input type="checkbox"/>	5. Display	24 (1.95%)	16 (1.68%)	26 (1.90%)	0.00%	30.85	00:08:20	0.00%	0 (0.00%)	\$0.00 (0.00%)
<input type="checkbox"/>	6. Affiliates	7 (0.57%)	6 (0.63%)	7 (0.51%)	0.00%	21.86	00:19:45	0.00%	0 (0.00%)	\$0.00 (0.00%)

The segment is then applied to the Acquisition Overview report. From this report, organic search channel had the highest ecommerce conversion rate. This means, the highest converting sessions from the mobile users came from the organic search channels.

# Audience Segment: Geography

Primary Dimension: [Product](#) [Product SKU](#) [Product Category \(Enhanced Ecommerce\)](#) [Product Brand](#)

Secondary dimension ▾



advanced



Product Category (Enhanced Ecommerce)	Product Revenue ▾ ↓	Product Revenue	Contribution to total: Product Revenue ▾
<b>Sessions with Conversions USA</b>	<b>\$9,807.35</b> % of Total: 82.99% (\$11,817.19)	<b>\$9,807.35</b> % of Total: 82.99% (\$11,817.19)	
1.  Apparel	<b>\$5,142.90</b>	52.44%	
2.  Accessories	<b>\$587.10</b>	5.99%	
3.  New	<b>\$574.50</b>	5.86%	
4.  Lifestyle	<b>\$541.00</b>	5.52%	
5.  Office	<b>\$536.75</b>	5.47%	
6.  Uncategorized Items	<b>\$472.30</b>	4.82%	
7.  Drinkware	<b>\$301.40</b>	3.07%	
8.  Campus Collection	<b>\$297.00</b>	3.03%	
9.  Clearance	<b>\$293.00</b>	2.99%	
10.  Bags	<b>\$270.00</b>	2.75%	

Show rows: 10 ▾

Go to: 1

1 - 10 of 49



*This part of the analysis intends to focus on the eCommerce conversions of the United States. Therefore, an audience segment needs to be created based on the geography. A filter (country) is added to the existing Sessions with Conversions segment and United States is specified. The new segment is defined as Sessions with Conversions USA. The segment is then applied to the eCommerce >Product Performance report. The report shows that Apparel generated the most revenue (52.44%) in the United States in the three months period (Jan 01, 2020 to Mar 28, 2020).*

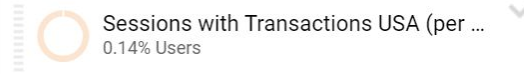
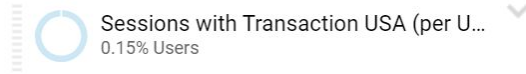


# Audience Segment: User Behavior

## Acquisition Overview

[SAVE](#) [EXPORT](#) [SHARE](#) [INSIGHTS](#)

Jan 1, 2020 - Mar 28, 2020



Primary Dimension:

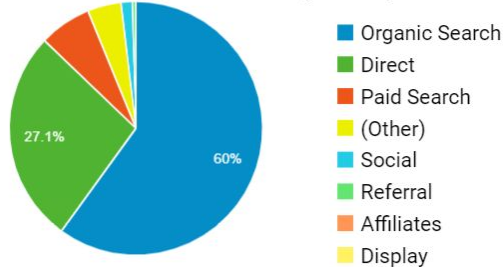
Default Channel Grouping

Conversion:

All Goals

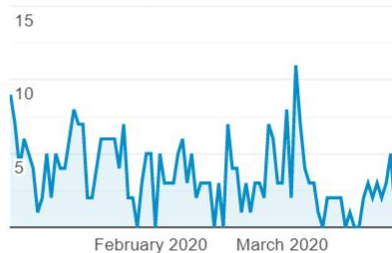
### Top Channels

#### Sessions with Transaction USA (per User)



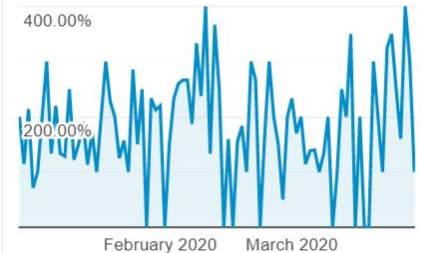
### Users

Users

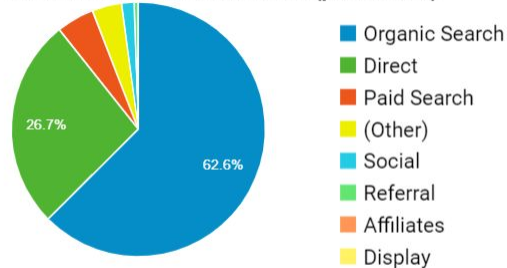


### Conversions

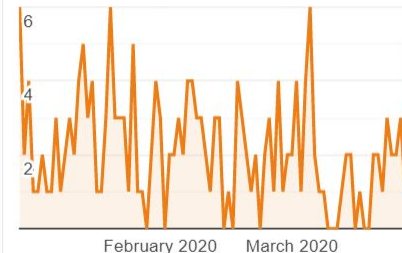
Goal Conversion Rate



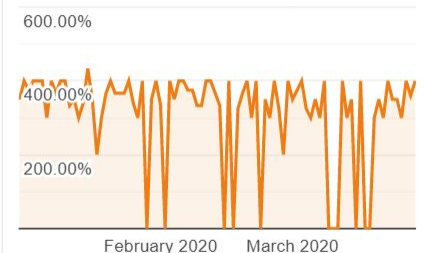
#### Sessions with Transactions USA (per Session)



Users



Goal Conversion Rate



A new segment is created for the US audience, based on the customer behaviour. It is defined as Sessions with Transactions. The scope of the segment is switched between User and Session. For these two segments, the goal conversion rates are compared for different acquisition channels. All the channels displayed a higher goal conversion rate for the session-scope segment compared to the user-scope segment. Although the number of users and the number of sessions both were found larger in user-scope segment than the session-scope segment. In Google Analytics, User refers to a unique visitor and Sessions can be multiple. That means, a single user can create multiple sessions for any transaction. On the other hand, if a user access to the same website from different browsers, GA would count him as a unique user each time. Therefore, a larger denominator of user could display a lower rate of goal conversion.



# Part Two: Connecting a Data Source and Creating a Custom Dashboard

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# 1. Merchandise Store Draft

## Dashboard: Built on the Master View

← → ↻ datastudio.google.com/u/0/navigation/datasources ☆ T +

Data Studio Search Data Studio ? ⚙️ ☰ 👤

Create

Recent Reports Data sources Explorer

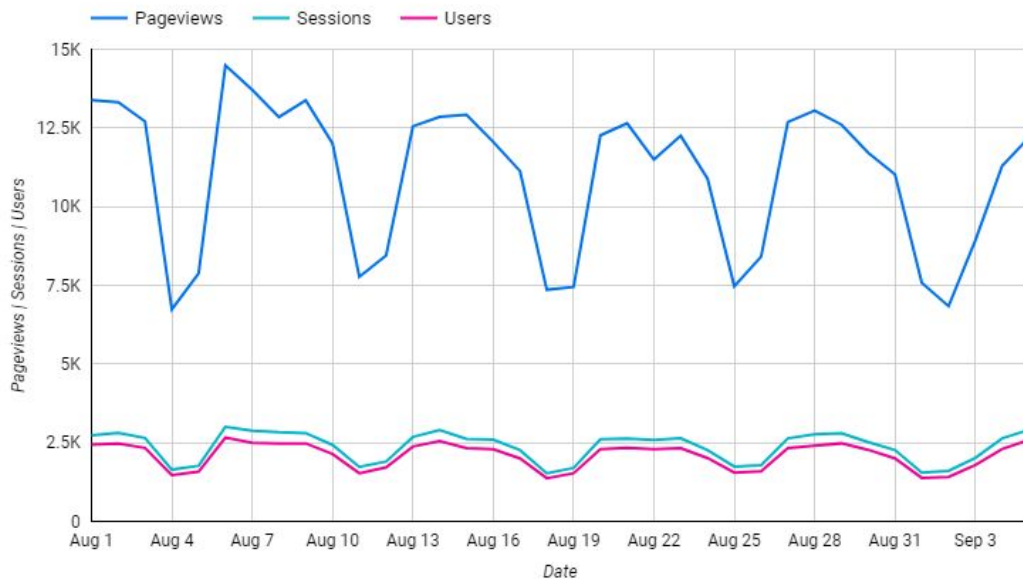
Name	Owned by anyone ▼	Last opened by me ▼ ↓
1 Master View	Tonima Ferdous	2:04 PM

Recent Shared with me Trash

## 2. Merchandise Store Draft

### Dashboard: Time Series chart

Aug 1, 2018 - Sep 5, 2018



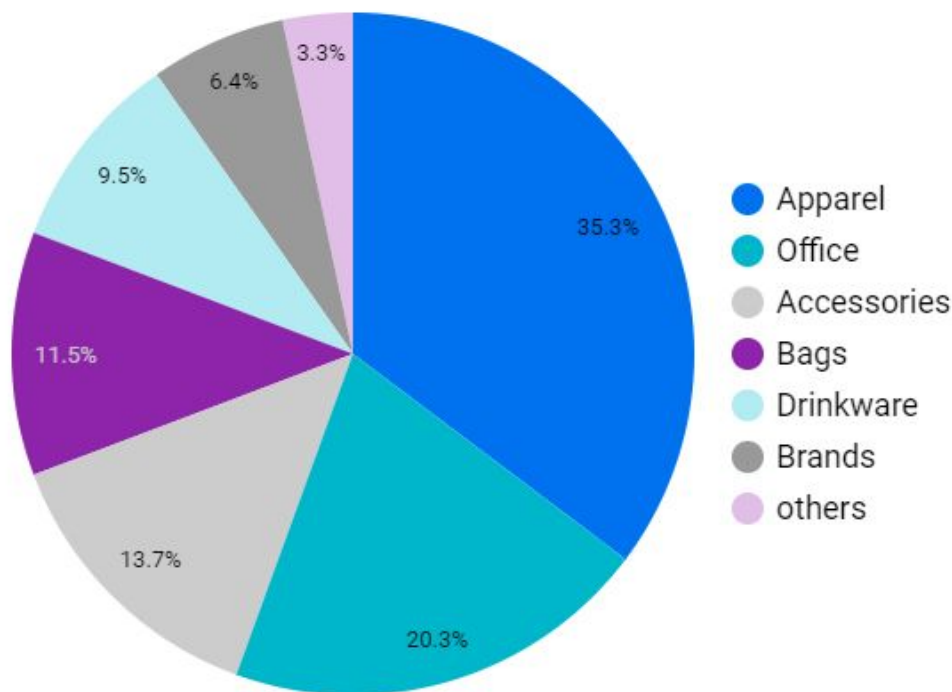
Time Series Chart: Pageviews, Sessions and Users

Avg. Order Value  
\$101.32

### 3. Merchandise Store Draft

## Dashboard: Pie chart, 7 slices

Aug 1, 2018 - Sep 5, 2018



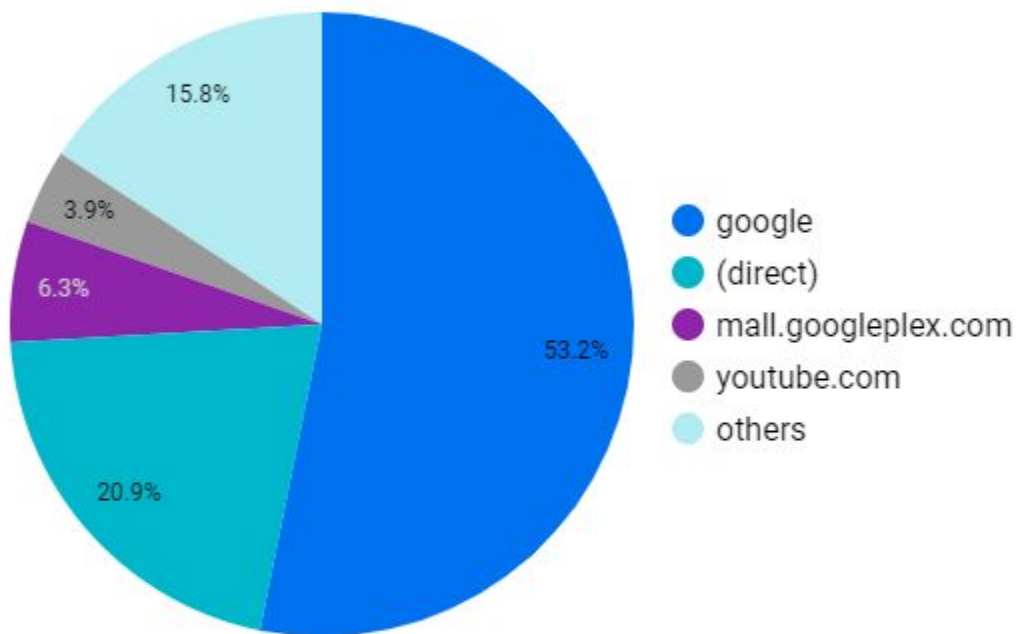
Pie Chart: Revenue by Product Categories

Avg. Order Value  
**\$101.32**

## 4. Merchandise Store Draft

### Dashboard: Pie chart, 5 slices

Aug 1, 2018 - Sep 5, 2018



Pie Chart: Sources Driving New Users

Avg. Order Value  
**\$101.32**

# 5. Merchandise Store Draft

## Dashboard: Scorecard

Aug 1, 2018 - Sep 5, 2018

Avg. Order Value  
**\$101.32**

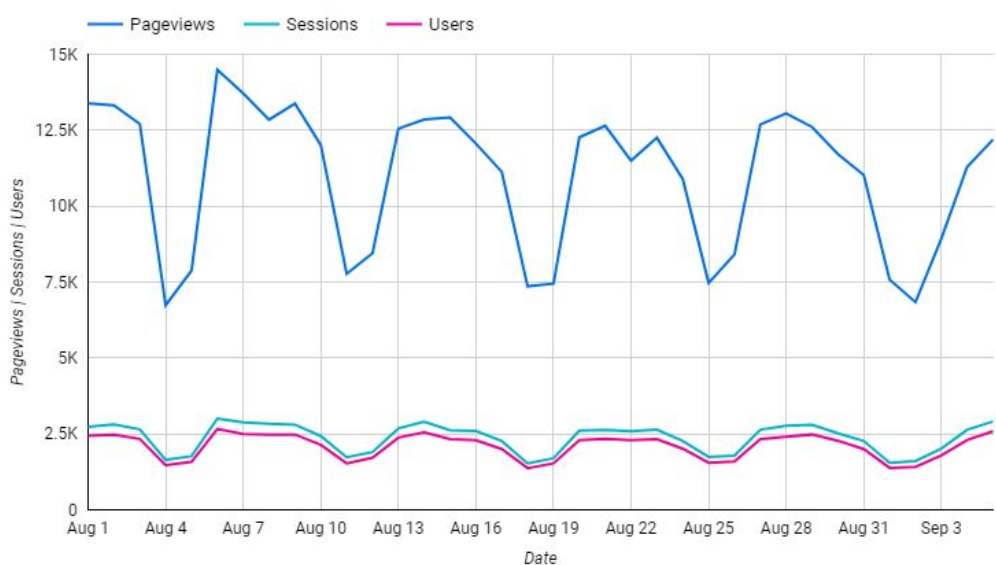
## 6. Merchandise Store Draft

### Dashboard: Date Range Control

Aug 1, 2018 - Sep 5, 2018

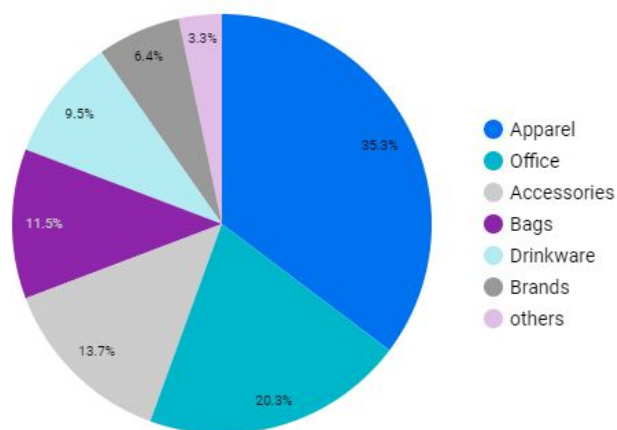
# 7. Merchandise Store Draft

## Dashboard: Combined Dashboard

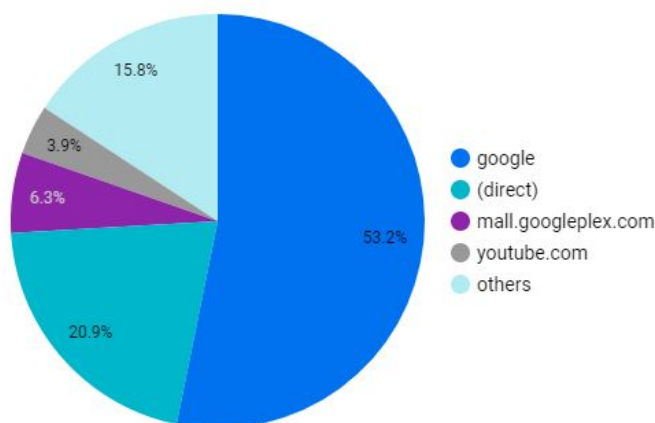


Aug 1, 2018 - Sep 5, 2018

Time Series Chart: Pageviews, Sessions and Users



Pie Chart: Revenue by Product Categories



Pie Chart: Sources Driving New Users

Avg. Order Value  
\$101.32



# Marketing Analytics Nanodegree Program

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## Google Analytics