UDACITY

Google Analytics

Advanced Displays, Segmentation & Filtering

Part One:
Primary Views & Filters

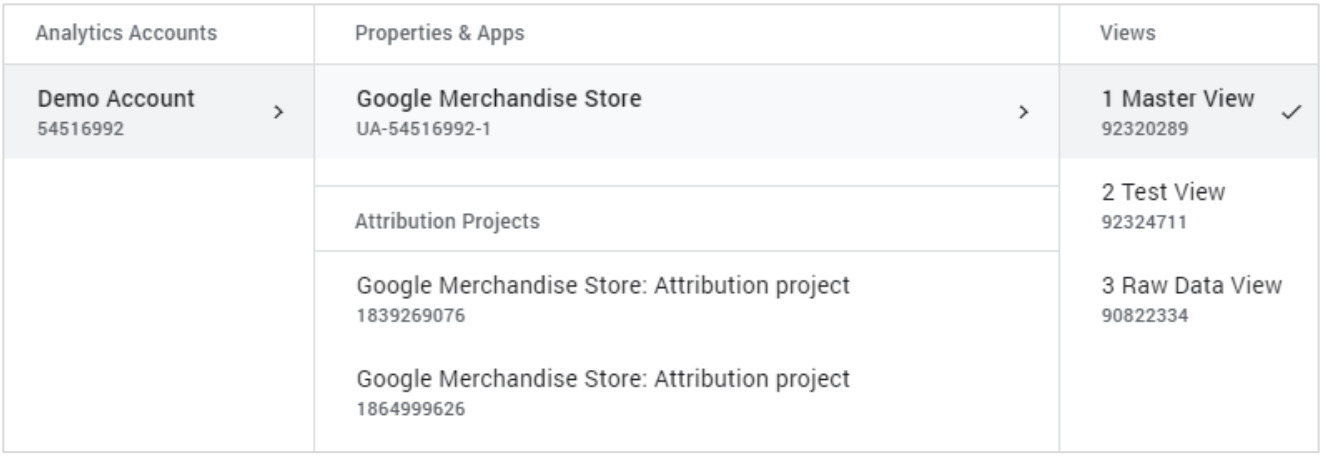
1. Best Practice Check:
Three Primary Views

By using the *Google Merchandise Store Demo Account* and checking the Top level aspects, some things be come apparent:

1. The account is called "Demo Account".
2. In the account, there is a Property called "*Google Merchandise Store*".
3. In the Property, there are three views, "*Master View*", "*Test View*" and "*Raw Data View*".

- The Master View is going to be where the final implementations of the tests that we did in the Test View are going to be placed.

- The Raw Data View is going to serve the purpose of backing up our data, in case anything goes wrong, such as in a filter, that could potentially cause data loss.



2. Best Practice Check:
Filtering Internal Traffic

There are three filters in the account, which are:

1. ***Exclude Product*** (not implemented in any view).
2. ***Include Hostname*** (includes hostname ".googlemerchandisestore.com"), implemented in three views.
3. ***Rename AdWords Campaigns*** (Replaces Campaign Name strings using the Regex "^(.*?)(~|-)"), a Replace String is not yet provided, this filter was applied to the three views.

Filter Name	Filter Type	Views
Exclude Product	Exclude	0
Include Hostname	Include	3
Rename AdWords Campaigns	Search and Replace	3

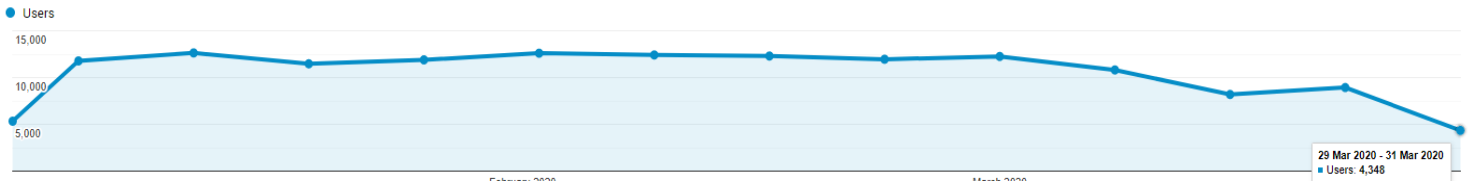
Access to add a filter was not provided, but to do so we would Click on Filter and then Add filter.
As explained in the lessons, by making sure that the filter is set to exclude we would have to add a regular expression, such as "244\.90\.156\.([1-9]|1[0-5]$", which filter out the rage from "244.90.156.1" until "244.90.156.15".

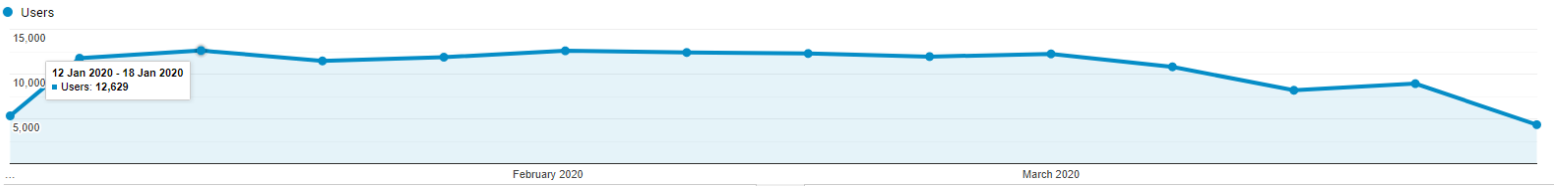
Part Two:
Data Exploration

Standard Display - Audience

From the Audience Overview Report, by seleting a period between 1 Jan 2020 and 31 Mar 2020, we can see that the week with lowest users was the last one.
The complete week with least amount of users was from 15 Mar 2020 to 21 Mar 2020.

The biggest amount of users week is the 12 Jan 2020 to 18 Jan 2020.



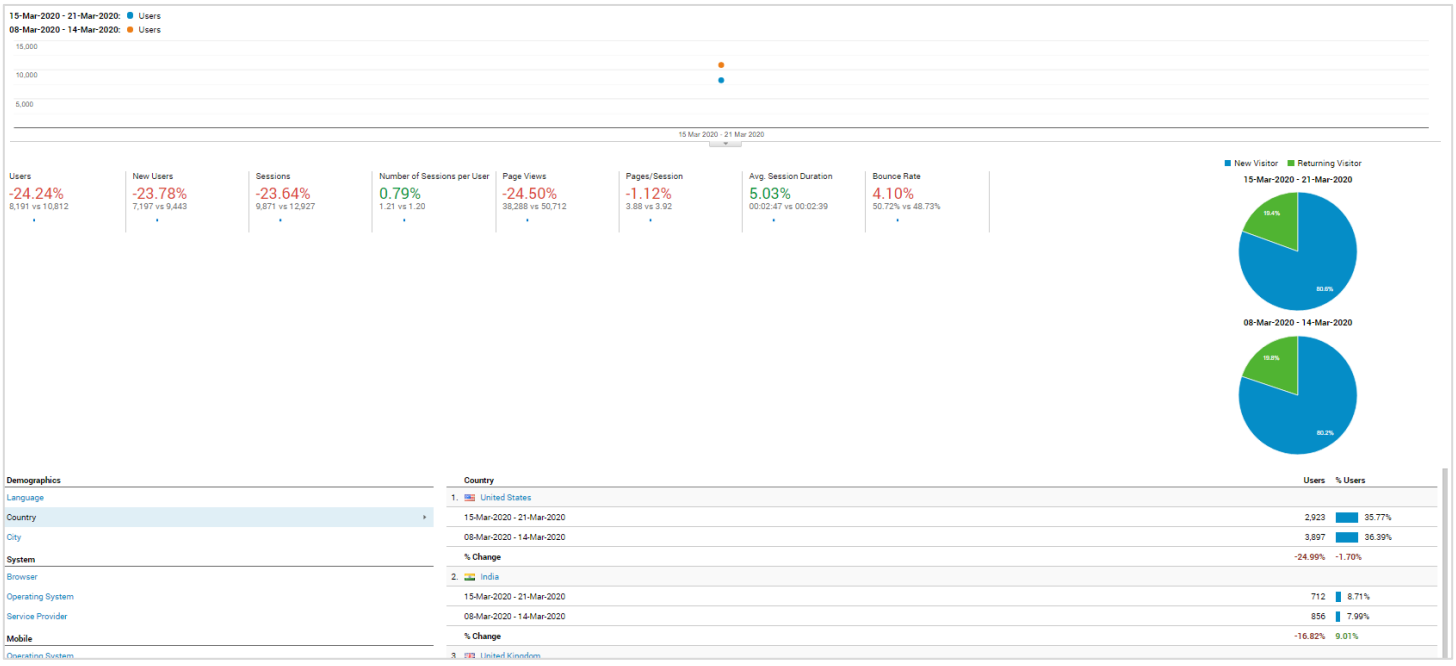


Standard Display - Audience

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

Although the smallest week was the one from 29 Mar 2020 to 31 Mar 2020, this was due to it only showing two days.
The first week is also incomplete.

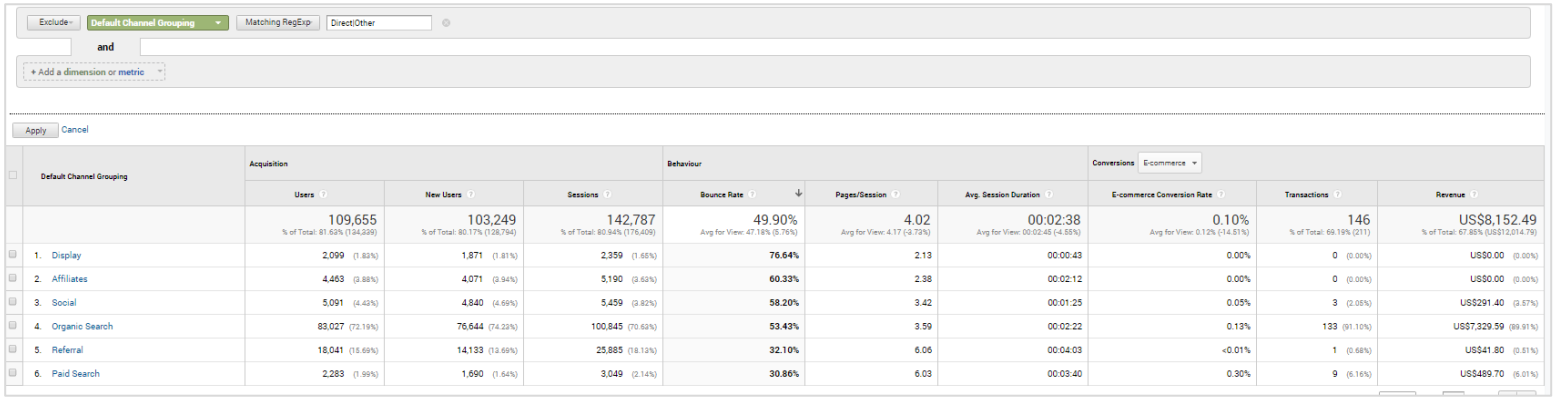
While I'm not certain of why this decrease happened, something that can be seen when comparing 15 Mar 2020 – 21 Mar 2020 to the previous, is that the U.S users dropped by 25% and although there were countries with bigger percentage drops or increases, the United States is the biggest contributor in terms of absolute values.



Standard Display: Acquisition

By creating a creating a regex filter to exclude “Direct|Other”, it can be clearly seen that the biggest Bounce Rate was on Display (76.54%) and the lowest was Paid Search (30.86%).

The highest E-commerce Conversion Rate was on Paid Search, while the lowest was on Display and Affiliates.



Default Channel Grouping	Acquisition			Behaviour			Conversions E-commerce		
	Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration	E-commerce Conversion Rate	Transactions	Revenue
	109,655 % of Total: 81.63% (134,339)	103,249 % of Total: 80.17% (128,794)	142,787 % of Total: 80.94% (176,409)	49.90% Avg for View: 47.18% (5.76%)	4.02 Avg for View: 4.17 (-3.73%)	00:02:38 Avg for View: 00:02:45 (-4.55%)	0.10% Avg for View: 0.12% (-14.51%)	146 % of Total: 69.19% (211)	US$8,152.49 % of Total: 67.85% (US$12,014.79)
1. Display	2,099 (1.83%)	1,871 (1.81%)	2,359 (1.65%)	76.64%	2.13	00:00:43	0.00%	0 (0.00%)	US$0.00 (0.00%)
2. Affiliates	4,463 (3.88%)	4,071 (3.94%)	5,190 (3.63%)	60.33%	2.38	00:02:12	0.00%	0 (0.00%)	US$0.00 (0.00%)
3. Social	5,091 (4.43%)	4,840 (4.69%)	5,459 (3.82%)	58.20%	3.42	00:01:25	0.05%	3 (2.05%)	US$291.40 (3.57%)
4. Organic Search	83,027 (72.19%)	76,644 (74.23%)	100,845 (70.63%)	53.43%	3.59	00:02:22	0.13%	133 (91.10%)	US$7,329.59 (89.91%)
5. Referral	18,041 (15.69%)	14,133 (13.69%)	25,885 (18.13%)	32.10%	6.06	00:04:03	<0.01%	1 (0.68%)	US$41.80 (0.51%)
6. Paid Search	2,283 (1.99%)	1,690 (1.64%)	3,049 (2.14%)	30.86%	6.03	00:03:40	0.30%	9 (6.16%)	US$489.70 (6.01%)

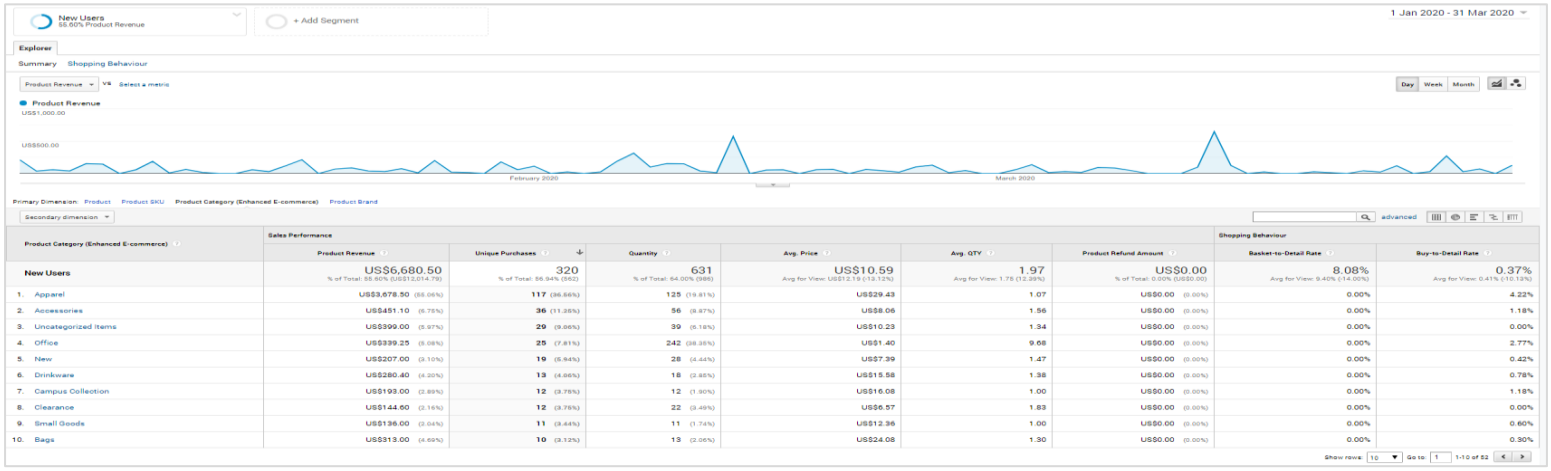
Standard Display: Acquisition

Bounce Rate corresponds to a percentage of sessions in which there wasn't any interaction with any other page after the landing page.
Since the user doesn't click in any page, or leaves the page, it is considered a bounce.

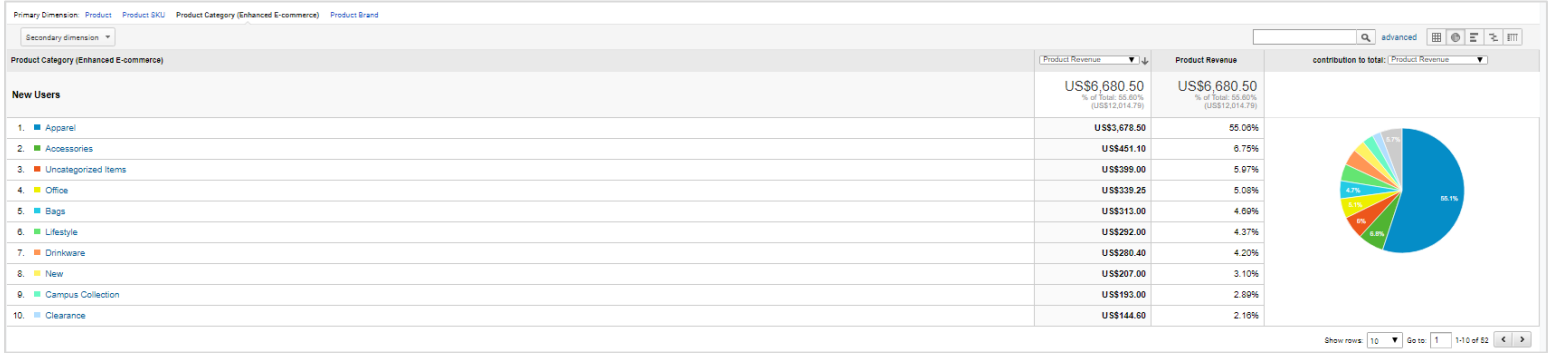
The E-commerce Conversion rate compares the Transactions with the Sessions, can be derived using the formula "Sessions/Transactions"

Percentage Display: Conversion

To be able to answer this question, the segment was changed to the system segment “New Users”.
The product Category which contributed the most to the Unique Purchases was “Apparel”.
The product Category responsible for the largest percentage of revenue for New Users was also Apparel, with 55.1%.



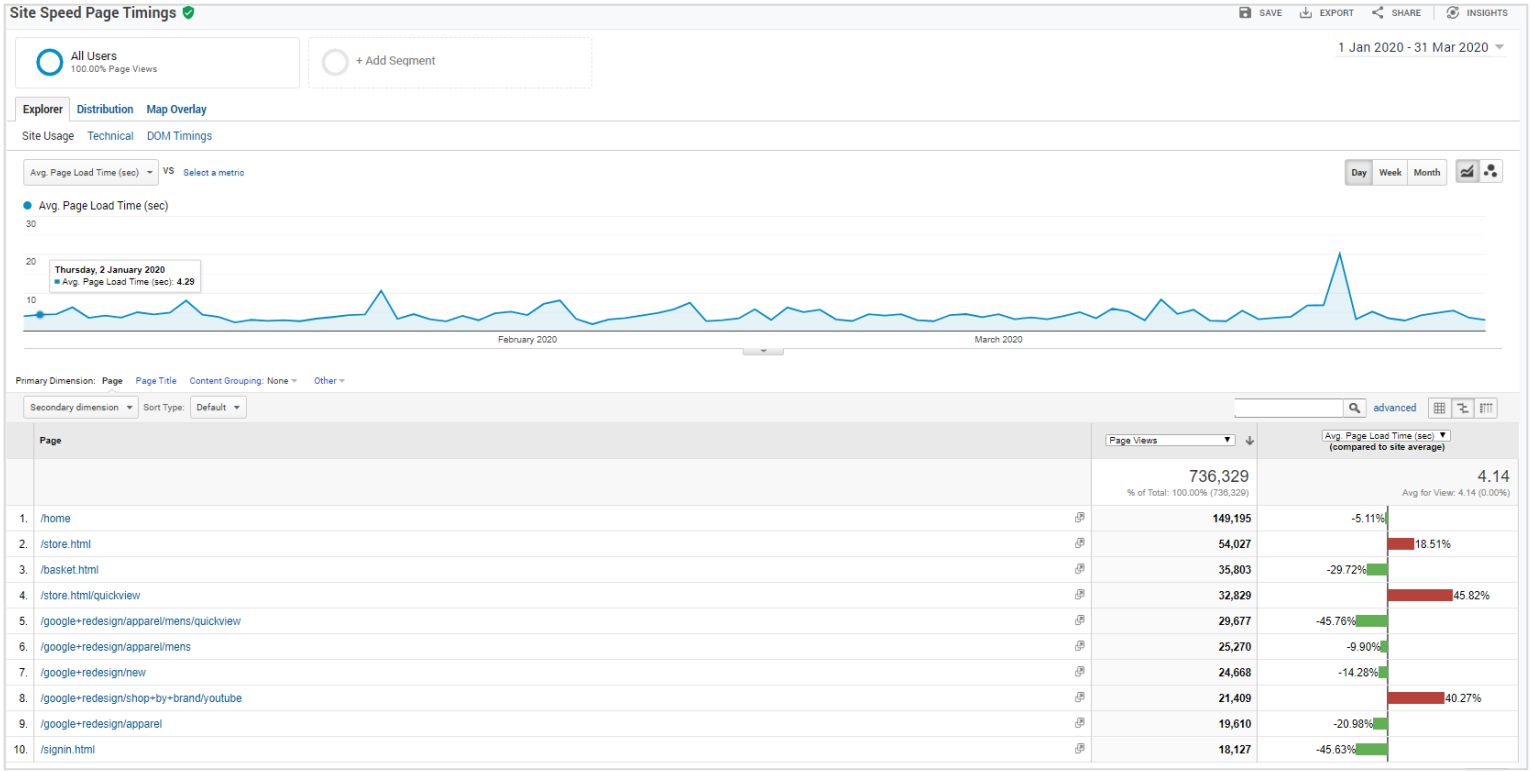
Product Category (Enhanced E-commerce)	Product Revenue	Unique Purchases	Quantity	Avg. Price	Avg. QTY	Product Refund Amount	Basket-to-Detail Rate	Buy-to-Detail Rate
New Users	US$6,680.50	320	631	US$10.59	1.97	US$0.00	8.08%	0.37%
1. Apparel	US$3,678.50	117	125	US$29.43	1.07	US$0.00	0.00%	4.22%
2. Accessories	US$451.10	36	56	US$8.06	1.56	US$0.00	0.00%	1.18%
3. Uncategorized Items	US$399.00	29	39	US$10.23	1.34	US$0.00	0.00%	0.00%
4. Office	US$339.25	25	242	US$1.40	9.68	US$0.00	0.00%	2.77%
5. New	US$207.00	19	28	US$7.39	1.47	US$0.00	0.00%	0.42%
6. Drinkware	US$280.40	13	18	US$15.58	1.38	US$0.00	0.00%	0.78%
7. Campus Collection	US$193.00	12	12	US$16.08	1.00	US$0.00	0.00%	1.18%
8. Clearance	US$144.60	12	22	US$6.57	1.83	US$0.00	0.00%	0.00%
9. Small Goods	US$136.00	11	11	US$12.36	1.00	US$0.00	0.00%	0.60%
10. Bags	US$313.00	10	13	US$24.08	1.30	US$0.00	0.00%	0.30%



Product Category (Enhanced E-commerce)	Product Revenue	Product Revenue
New Users	US$6,680.50	US$6,680.50
1. Apparel	US$3,678.50	55.06%
2. Accessories	US$451.10	6.75%
3. Uncategorized Items	US$399.00	5.97%
4. Office	US$339.25	5.08%
5. Bags	US$313.00	4.69%
6. Lifestyle	US$292.00	4.37%
7. Drinkware	US$280.40	4.20%
8. New	US$207.00	3.10%
9. Campus Collection	US$193.00	2.89%
10. Clearance	US$144.60	2.16%

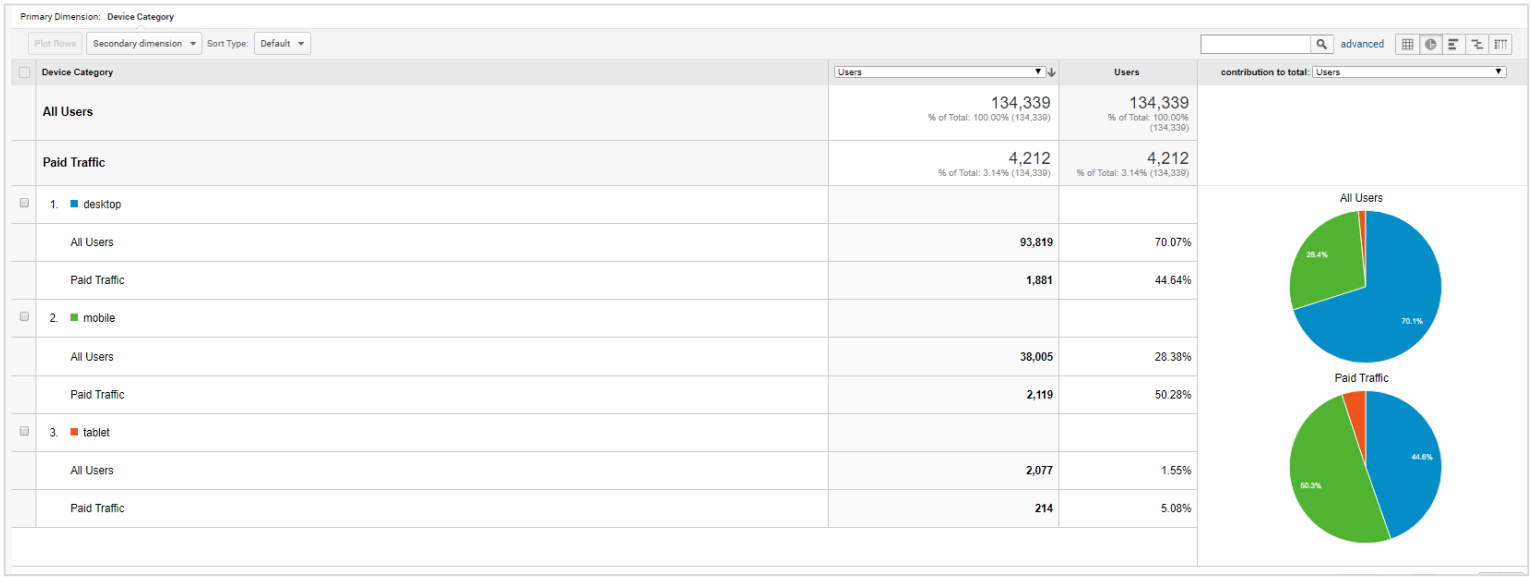
Comparison Display: Behavior

For the all users segment, there are three poorly performing pages in terms of Page Load Time, when compared to the total average load time.
The three pages are “/store.html”, “/store.html/quickview” and “/google+redesign/shop+by+brand/youtube”.
The latter two are more than 40% below average.



Percentage Display: Audience

For this comparison, a new segment was added for Paid Traffic, going into Audience → Mobile Overview.
In there, the breakdown by the device category and both segments is created automatically, which can be seen and understood at a glance by looking at the pie charts.



Primary Dimension: Device Category

Plot Rows | Secondary dimension | Sort Type: Default | advanced

Device Category	Users	Users	contribution to total: Users
All Users	134,339 % of Total: 100.00% (134,339)	134,339 % of Total: 100.00% (134,339)	
Paid Traffic	4,212 % of Total: 3.14% (134,339)	4,212 % of Total: 3.14% (134,339)	
1. desktop			
All Users	93,819	70.07%	
Paid Traffic	1,881	44.64%	
2. mobile			
All Users	38,005	28.38%	
Paid Traffic	2,119	50.28%	
3. tablet			
All Users	2,077	1.55%	
Paid Traffic	214	5.08%	

Part Three: Segmentation

Segmentation: Instructions

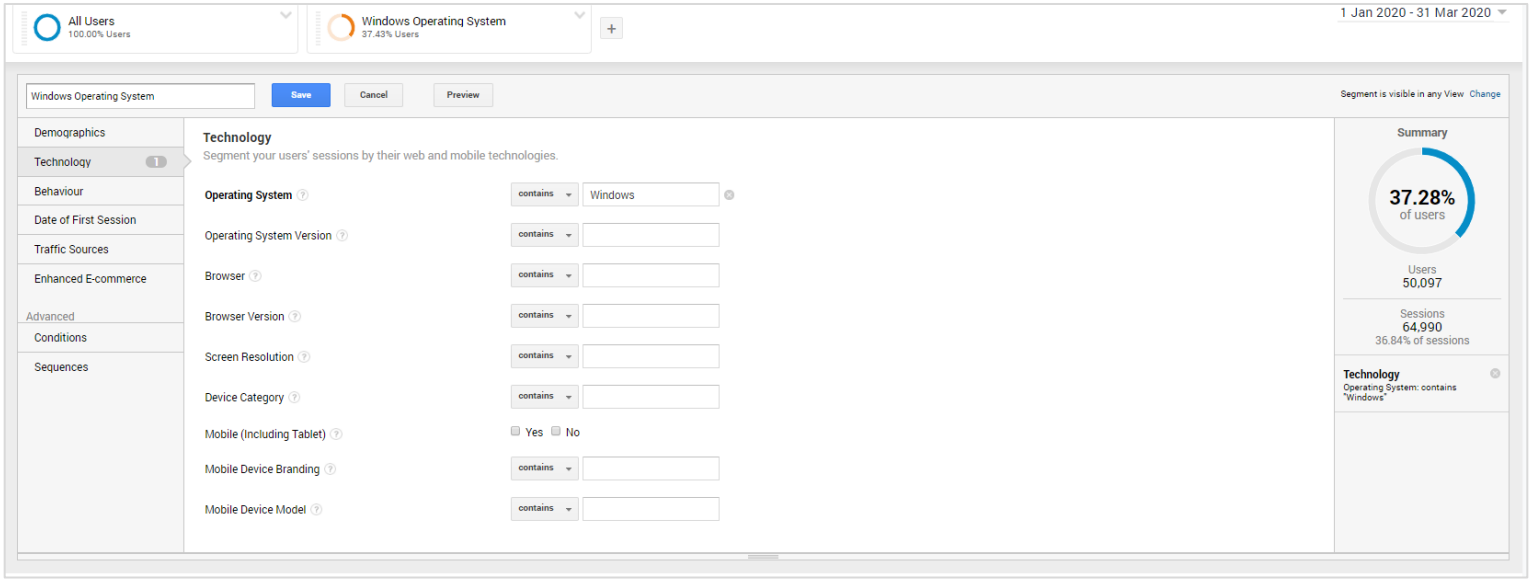
Segmentation helps provide clarity, insight, and confidence in data by making it more specific and actionable.

To demonstrate your knowledge:

- Identify and create three different audience segments and apply them to your data:
  - one based on audience characteristic (such as technology or demographics)
  - one based on geography
  - one based on user behaviors
- Change the scope for the behavior segment between *Sessions* and *Users* to see how this impacts metrics such as goal conversion rate.
- **Take screenshots showing each of your segments applied to the data and explain the segment and the results in the notes section. Place these items on the slides that follow.**

Remove this slide

Audience Segment: Characteristic



By selecting a segment of users that use the Windows Operating System, we can see that it pertains to 37.28% of users (50.097 users) and 36.84% of sessions (64.990 sessions).

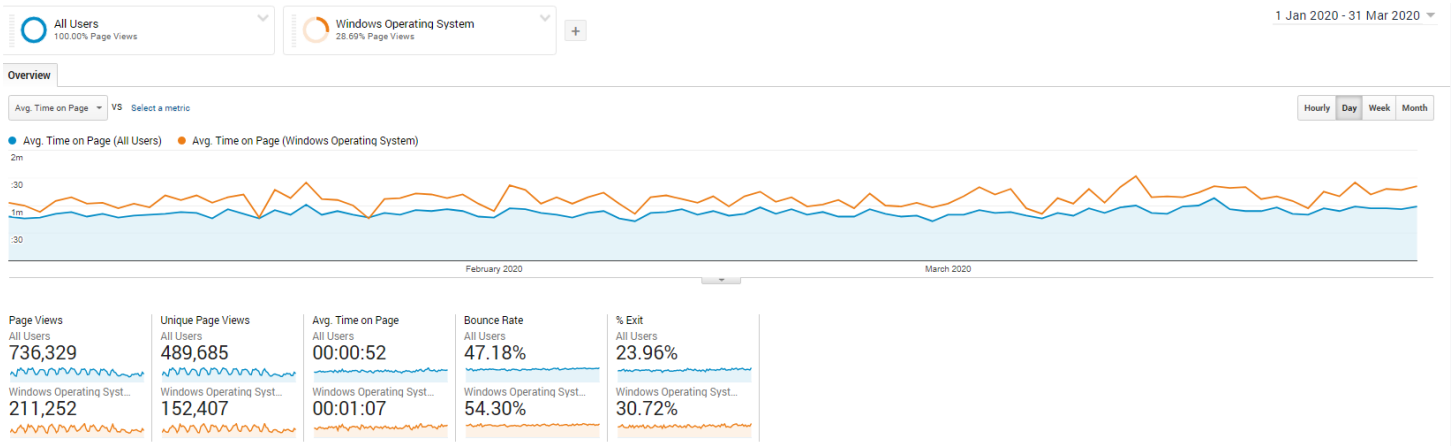
Using this segment, I can answer a specific questions such as:

How do my Windows users behave compared to all users?

How much off the ecommerce revenue comes from this segment?

How do these users compare to other operating systems?

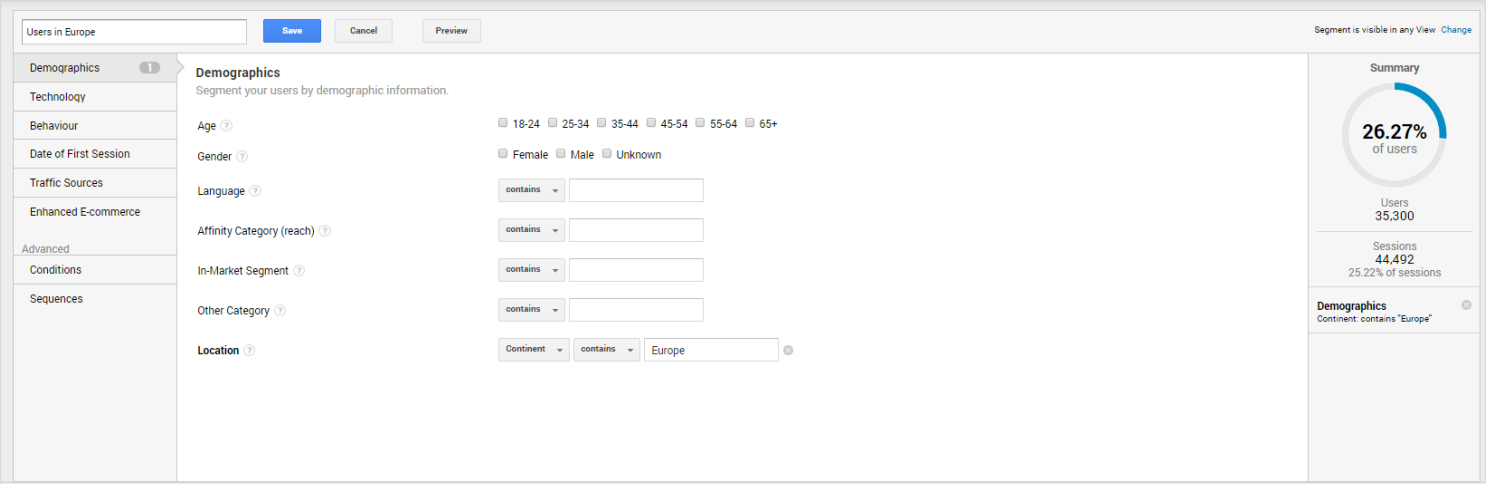
Audience Segment: Characteristic



In the image above, we can see that Windows Operating System users, on average stay longer on a page when compared to the totality of users.

Other kinds of analysis using averages and percentages could also be performed.

Audience Segment: Geography



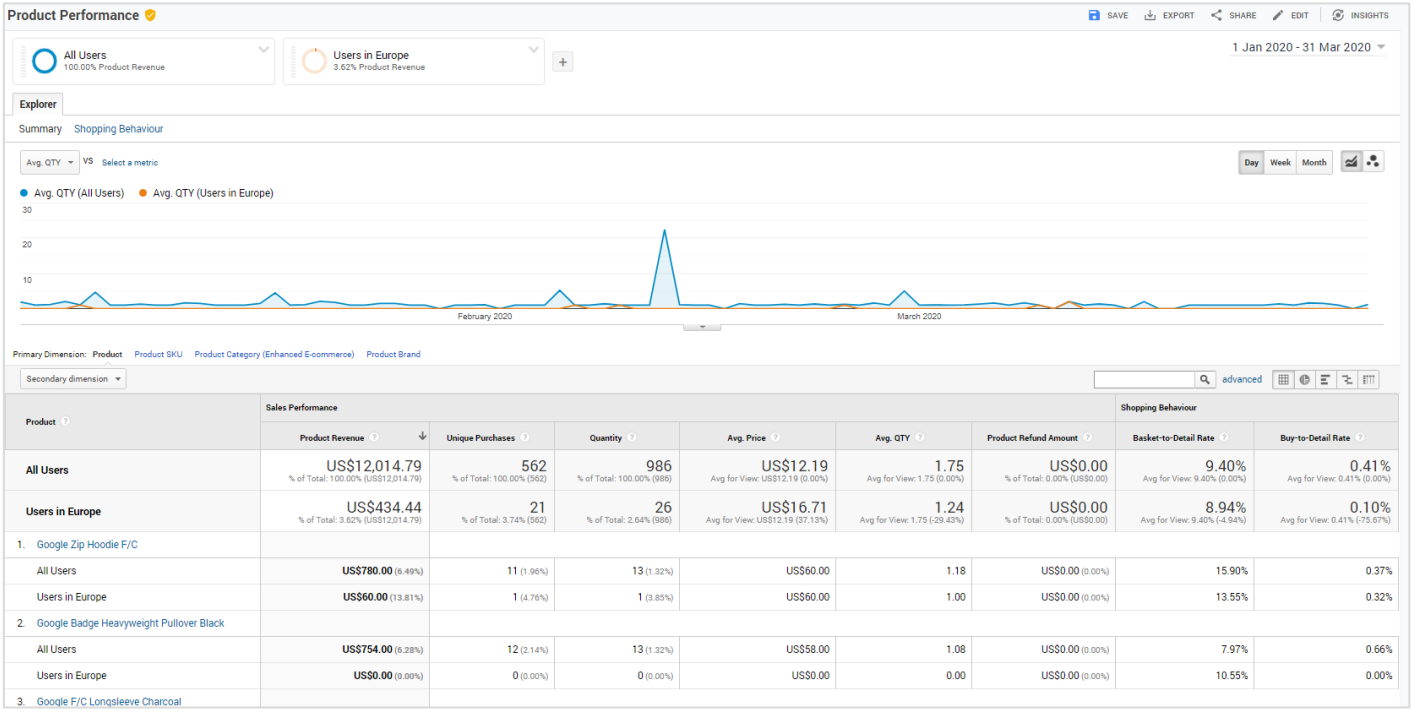
By selecting a segment of users that are located in Europe, we can see that it pertains to 26.27% of users (35.300 users) and 25.22% of sessions (44.492 sessions).

I can use this segment to answer questions such as:

How do my European users behave, related to other continents?

Are there any differences between these?

Audience Segment: Geography



Product Performance

SAVE EXPORT SHARE EDIT INSIGHTS

All Users
100.00% Product Revenue

Users in Europe
3.62% Product Revenue

1 Jan 2020 - 31 Mar 2020

Explorer

Summary Shopping Behaviour

Avg. QTY VS Select a metric

Day Week Month

Avg. QTY (All Users) Avg. QTY (Users in Europe)

30
20
10

February 2020 March 2020

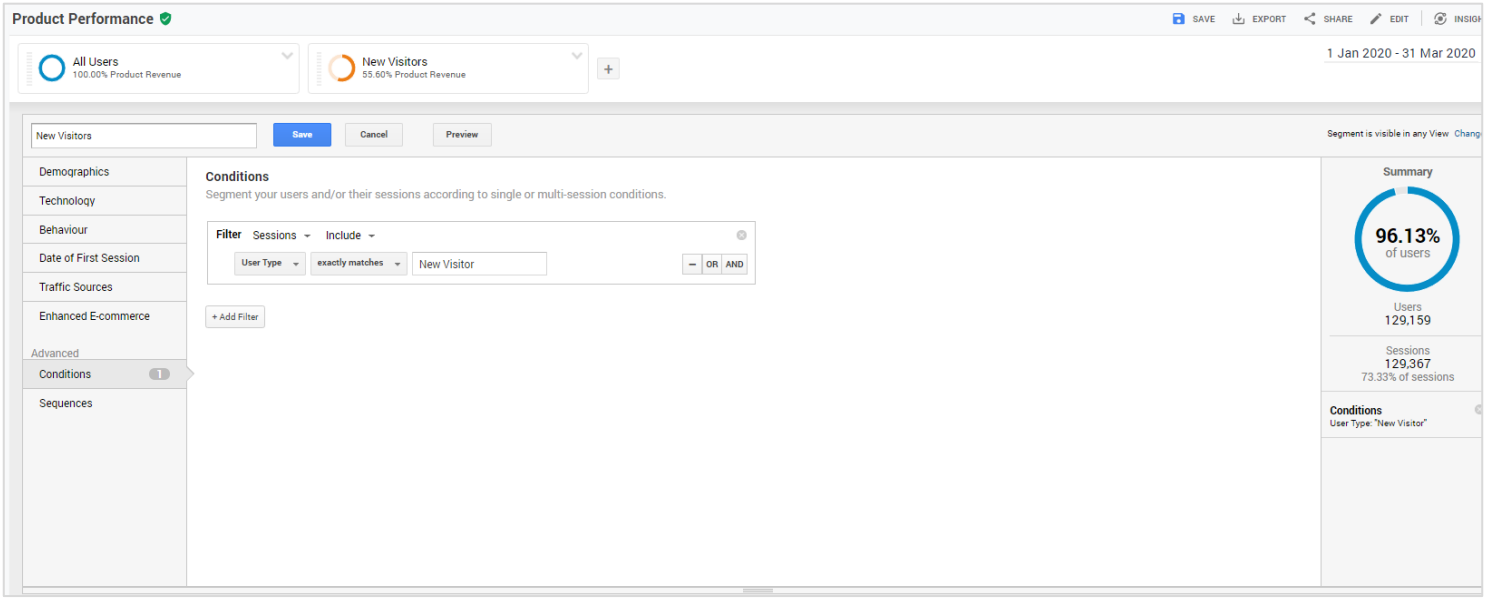
Primary Dimension: Product Product SKU Product Category (Enhanced E-commerce) Product Brand

Secondary dimension advanced

Product	Sales Performance						Shopping Behaviour	
	Product Revenue	Unique Purchases	Quantity	Avg. Price	Avg. QTY	Product Refund Amount	Basket-to-Detail Rate	Buy-to-Detail Rate
All Users	US$12,014.79 % of Total: 100.00% (US$12,014.79)	562 % of Total: 100.00% (562)	986 % of Total: 100.00% (986)	US$12.19 Avg for View: US$12.19 (0.00%)	1.75 Avg for View: 1.75 (0.00%)	US$0.00 % of Total: 0.00% (US$0.00)	9.40% Avg for View: 9.40% (0.00%)	0.41% Avg for View: 0.41% (0.00%)
Users in Europe	US$434.44 % of Total: 3.62% (US$12,014.79)	21 % of Total: 3.74% (562)	26 % of Total: 2.64% (986)	US$16.71 Avg for View: US$12.19 (37.13%)	1.24 Avg for View: 1.75 (-29.43%)	US$0.00 % of Total: 0.00% (US$0.00)	8.94% Avg for View: 9.40% (-4.94%)	0.10% Avg for View: 0.41% (-75.67%)
1. Google Zip Hoodie F/C								
All Users	US$780.00 (6.49%)	11 (1.96%)	13 (1.32%)	US$60.00	1.18	US$0.00 (0.00%)	15.90%	0.37%
Users in Europe	US$60.00 (13.81%)	1 (4.76%)	1 (3.85%)	US$60.00	1.00	US$0.00 (0.00%)	13.55%	0.32%
2. Google Badge Heavyweight Pullover Black								
All Users	US$754.00 (6.28%)	12 (2.14%)	13 (1.32%)	US$58.00	1.08	US$0.00 (0.00%)	7.97%	0.66%
Users in Europe	US$0.00 (0.00%)	0 (0.00%)	0 (0.00%)	US$0.00	0.00	US$0.00 (0.00%)	10.55%	0.00%
3. Google F/C Longsleeve Charcoal								

By selecting a segment of users that are located in Europe, find that based on the average quantity bought for the dates between 1 Jan 2020 and 31 Mar 2020, European users purchase in smaller quantities.

Audience Segment: User Behavior

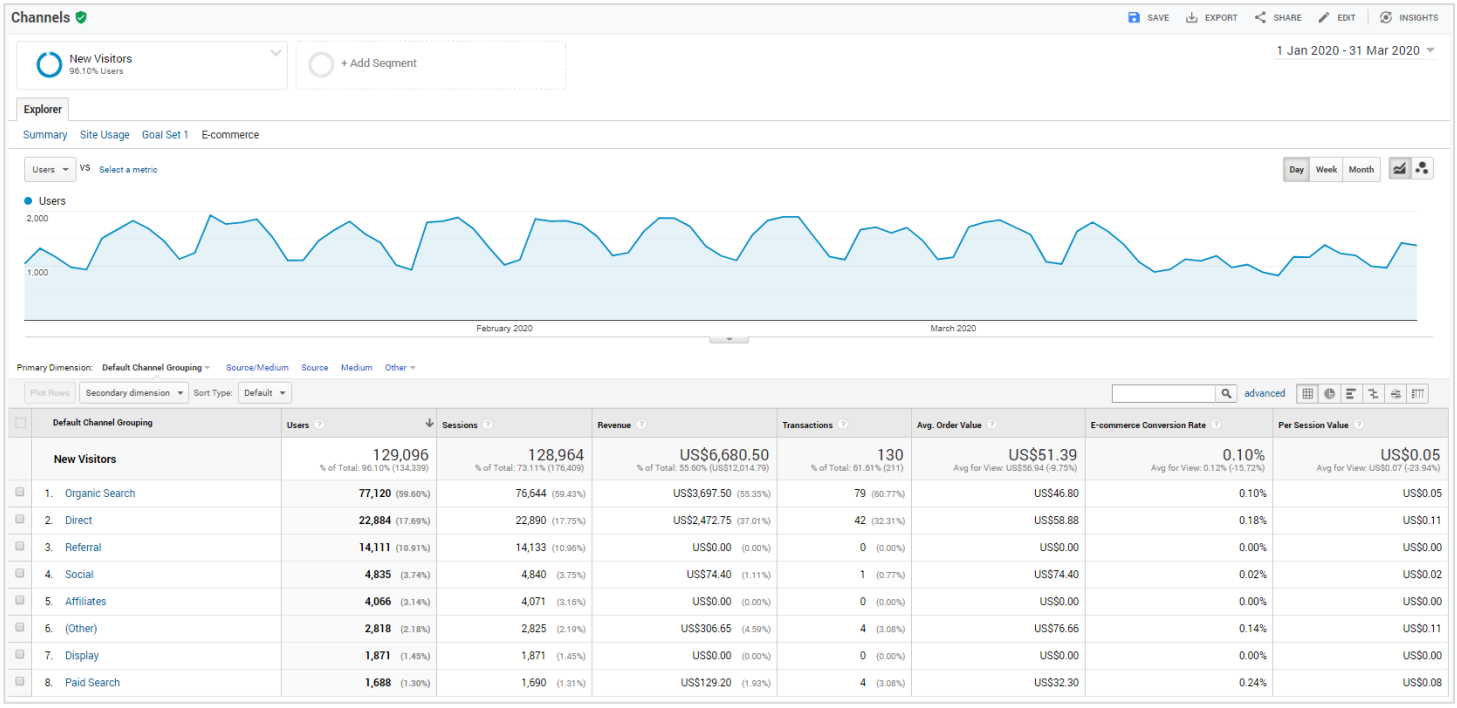


By selecting a segment of users that are New Visitors, we can see that it pertains to 96.13% of users (129.159 users) and 73.33% of sessions (129.367 sessions).

I can user this segment to answer the question:

- What was the contribution of the segment to the Revenue in the time period for the different Channels?

Audience Segment: User Behavior



Default Channel Grouping	Users	Sessions	Revenue	Transactions	Avg. Order Value	E-commerce Conversion Rate	Per Session Value
New Visitors	129,096 % of Total: 96.10% (134,339)	128,964 % of Total: 73.11% (176,409)	US$6,680.50 % of Total: 55.60% (US$12,014.79)	130 % of Total: 61.61% (211)	US$51.39 Avg for View: US$56.94 (-9.75%)	0.10% Avg for View: 0.12% (-15.72%)	US$0.05 Avg for View: US$0.07 (-23.94%)
1. Organic Search	77,120 (59.60%)	76,644 (59.43%)	US$3,697.50 (55.35%)	79 (60.77%)	US$46.80	0.10%	US$0.05
2. Direct	22,884 (17.69%)	22,890 (17.75%)	US$2,472.75 (37.01%)	42 (32.31%)	US$58.88	0.18%	US$0.11
3. Referral	14,111 (10.91%)	14,133 (10.96%)	US$0.00 (0.00%)	0 (0.00%)	US$0.00	0.00%	US$0.00
4. Social	4,835 (3.74%)	4,840 (3.75%)	US$74.40 (1.11%)	1 (0.77%)	US$74.40	0.02%	US$0.02
5. Affiliates	4,066 (3.14%)	4,071 (3.16%)	US$0.00 (0.00%)	0 (0.00%)	US$0.00	0.00%	US$0.00
6. (Other)	2,818 (2.18%)	2,825 (2.19%)	US$306.65 (4.59%)	4 (3.08%)	US$76.66	0.14%	US$0.11
7. Display	1,871 (1.45%)	1,871 (1.45%)	US$0.00 (0.00%)	0 (0.00%)	US$0.00	0.00%	US$0.00
8. Paid Search	1,688 (1.30%)	1,690 (1.31%)	US$129.20 (1.93%)	4 (3.08%)	US$32.30	0.24%	US$0.08

From the image above, we can see that the revenue for the time period in analysis was $6,680.50, which answers our question.

Some deeper analysis could also be conducted, to compare between New Visitor Segments and all users.

ANND Portfolio

Advanced Displays, Segmentation & Filtering