Data Visualization Guide

+ Best Practices and Examples

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What is Data Visualization?

Simply put, the visual representation of data in a graph chart, or any other visual format

Commonly used tools: Google Data Studio, Tableau, and PowerBI

3 Levels of Visualization:

- 1. **Dashboarding**: visuals that are live or regularly updated. No/little human input
- 2. **Reporting**: dashboarding supplemented with human input or callouts
- 3. **Analysis**: seeks to answer complex client-specific business questions. Analysis is custom and often varies month-to-month

Asking the Right Questions

Setting the Stage

Before creating your visualization, try to gain an understanding of

- 1. Who will be using the Viz
- 2. What purpose the Viz will serve

First, you'll want to establish the date range and if they want to see time trends (daily, weekly, monthly, yearly etc.)

What is the Objective of the Dashboard?

Question: "Will one person or will multiple people use the dashboard across multiple teams?"

Answer 1: "One person, our lead web analyst"

Action 1: Allows for more in-depth reporting and technical analysis, can be quite specific since audience is tech savvy

Answer 2: "This will be used by 25 people across multiple teams" Action 2: Be very descriptive and clear with your naming and data descriptions. Try to keep it relatively simple and high-level so that people not familiar with the details can understand too.

What is the Objective of the Dashboard?

Question: "Will you be interacting with the dashboard in (GDS, Tableau, PowerBI) or do you prefer another tool like Excel?"

Answer 1: "We'll be interacting with the dashboard on a weekly basis" Action 1: This will let you know the level of interactivity you'll want to build into the dashboard. You'll want to make it so your audience can go in and tweak things easily.

Answer 2: "We'll look at the visuals, but we'll mostly be exporting the data into an Excel or Google Sheet

Action: This will let you know to include some high-level visuals, but to also include a lot of tables so the client can export to Excel easily





Simple Comparison of Two Important Metrics

Best Practice:
Keeping it simple.
Choose two important metrics and show % changes in the sidebar.

Overall Sessions (This Month)
110,954

- 1 29% from previous month
- 1 106% from previous year

Form Submits (This Month)

361

- # 36% from previous month
- # 38% from previous year

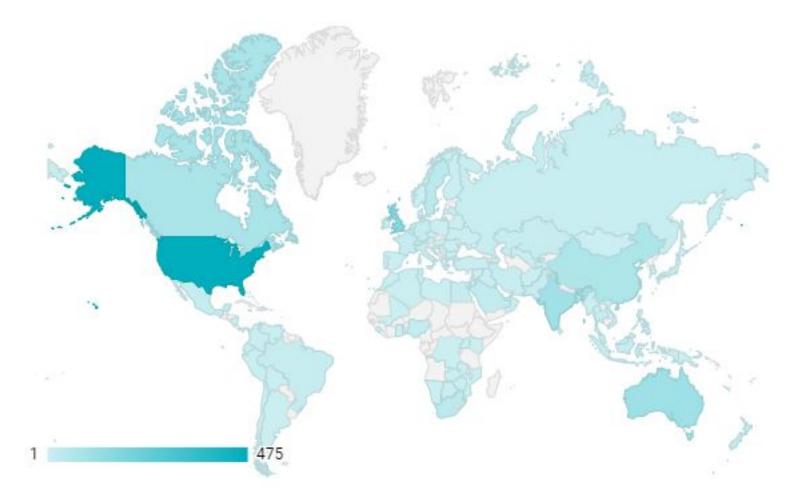
Analysis

Overall Performance includes all channels for the UK. There has been a decrease in overall performance MoM, however, this can likely be attributed to the holidays and end-of-year declines. The site experienced a 53% increase in traffic YoY.



Overall Site Metrics with a Geographic Focus

Filter by digital channel: Select date range: Filter by location: Jan 1, 2018 - Jan 31, 2018 Country Channel Pages / Session Bounce Rate Lead Submissions Lead Submission Rate Sessions 226,628 127.8K 60% 0.7% 2.5 1,592 **# 27.1% # 21.3%** # 4.2% # -4.0% **#** 50.6% **18.5%**



	Country	Sessions	% of Sessions	Lead Submissions 🕶	% of Leads
1.	United States	75,207	33.2%	475	29.8%
2.	United Kingdom	9,994	4.4%	160	10.1%
3.	Australia	10,091	4.5%	106	6.7%
4.	India	19,390	8.6%	100	6.3%
5.	Canada	6,188	2.7%	78	4.9%
6.	China	4,449	2.0%	70	4.4%
7.	South Africa	1,461	0.6%	36	2.3%
8.	Sweden	53,987	23.8%	35	2.2%
9.	United Arab Emirates	2,316	1.0%	33	2.1%
10.	New Zealand	676	0.3%	21	1.3%

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Lead Summary

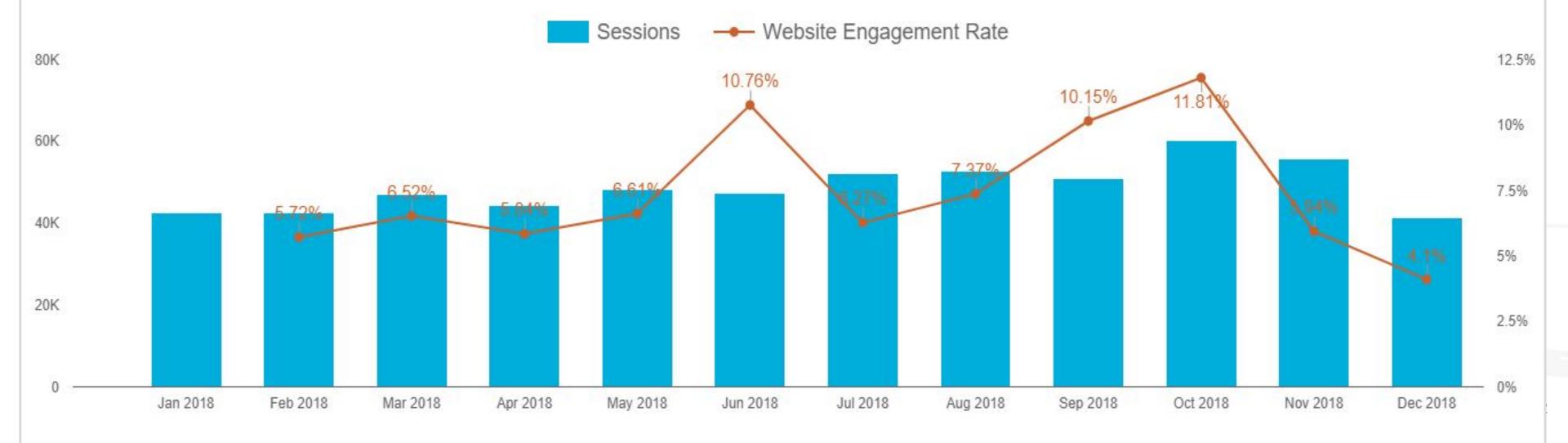
Leading Indicators - Website



Define the period

Monthly Sessions and Website Engagement YoY

* Website Engagement tracking started in Feb 2018



Site Metrics with Conversions by Device



₹ -45%

1 1%

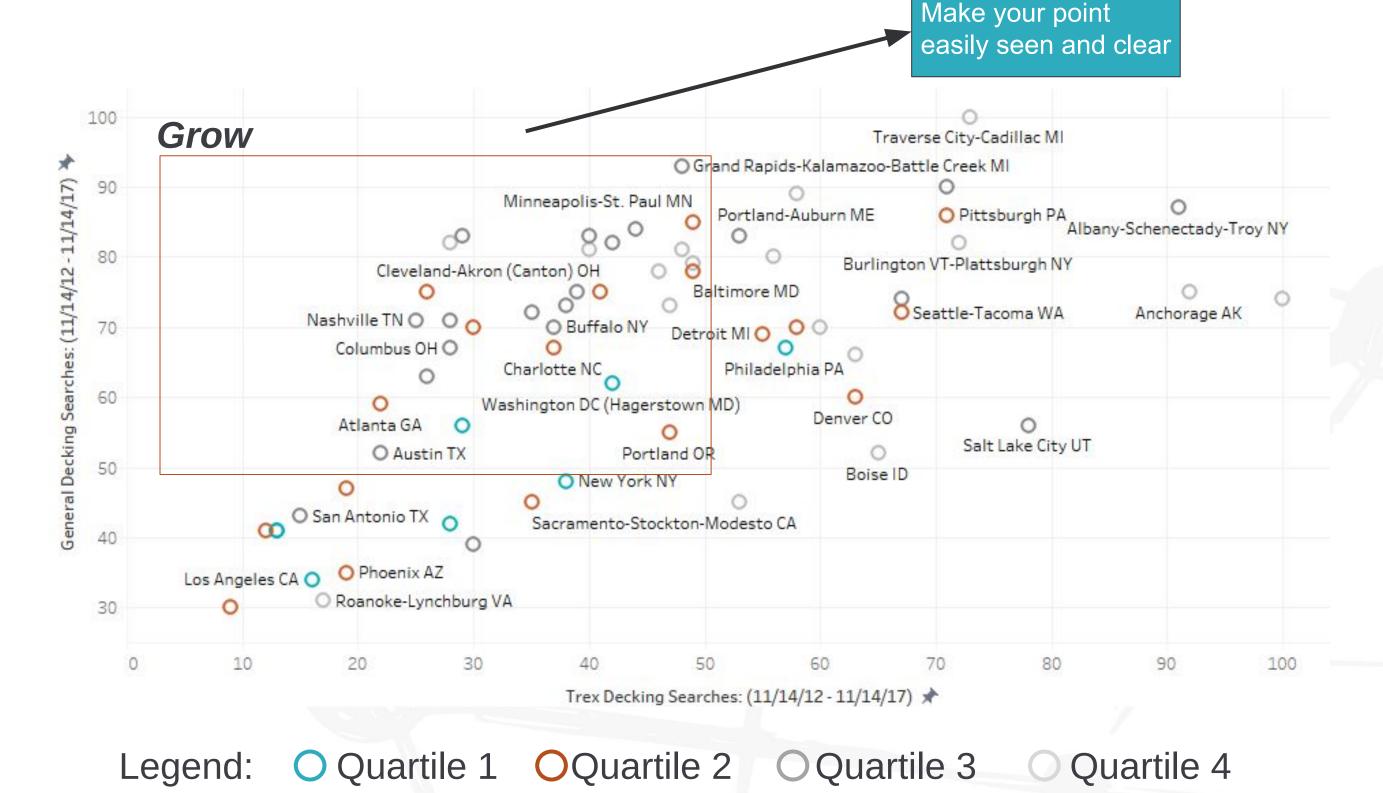
₹ -19%

• All Rights Reserved • Page 13

Geo Analysis Opportunity Areas

Plotting searches for general decking against searches for CLIENT decking reveals key locations for to capitalize on, where general interest is high (likely for wood decking) but not comparably as high for CLIENT

These are likely wood heavy markets for to increase presence in.

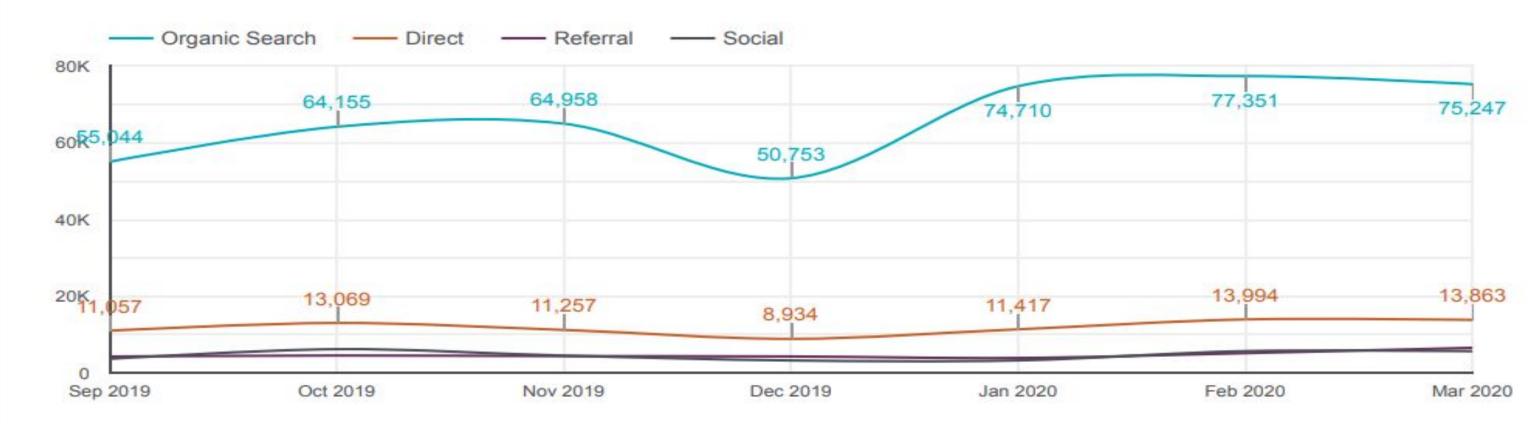


Best Practice:

In-Depth Traffic Distribution

Traffic Distribution by Source and Month





Sessions and Goals by Source (MoM%)

Channel	Sessions	% △	Goals	% △
Organic Search	75,247	-2.7% #	1,838	47.2% 1
Direct	13,863	-0.9% #	898	86.7%
Referral	6,596	26.7% 1	330	39.8%
Social	5,718	-0.2% #	442	97.3% :
Email	1,371	15.2% 1	136	138.6% 🛊
(Other)	534	16.6% 1	20	66.7% 🛊
Paid Search	509	58.1% 1	10	=
BD / PT / Wil	9	-18.2%	0	-

Sessions and Goals by Source (YoY%)

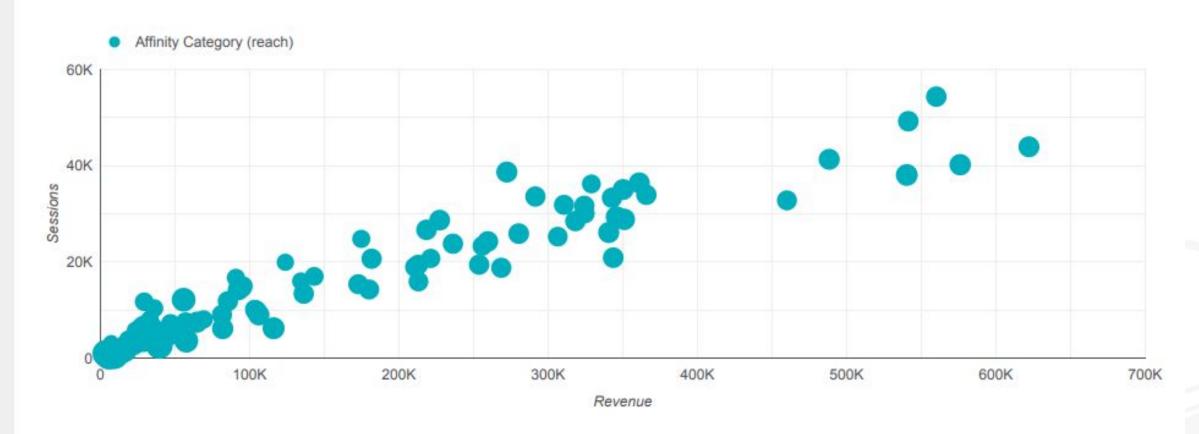
Channel	Sessions -	% △	Goals	% △
Organic Search	75,247	51.8% #	1,838	17.1% 1
Direct	13,863	18.7%	898	31.9% 1
Referral	6,596	182.6% :	330	151.9%
Social	5,718	28.1% 🛊	442	25.6% :
Email	1,371	-10.0%	136	134.5% 1
(Other)	534	37.6% 1	20	-44.4% #
Paid Search	509	197.7% 🛊	10	100.0% 1
BD / PT / Wil	9	5	0	-

Best Practice:

Heatmapping is a great way to get info across quickly

Affinity Category Performance

Revenue and Sessions by Affinity Category Last Month



Revenue and AOV by Affinity Category Last Month (MoM)

Affinity Category (reach)	New Users	% △	Returning Users	% ∆	Revenue *	% ∆	AOV	% Δ
Banking & Finance/Avid Investors	26,916	164.8% 1	2,324	124.5% 1	\$622,091.91	296.4% 1	\$1,114.86	0.2% 1
Travel/Travel Buffs	25,620	179.2% 1	1,691	72.7% 1	\$576,036.2	230.9% 1	\$1,163.71	-7.8% :
Food & Dining/Cooking Enthusiasts/30 Minute Chefs	36,790	191.6%	2,552	109.5% 1	\$560,012.3	270.6%	\$1,068.73	-2.4% :
Shoppers/Value Shoppers	32,380	183.3% 1	2,265	89.9%	\$541,261.05	202.0% 1	\$1,076.07	-14.7% :
Lifestyles & Hobbies/Business Professionals	24,182	178.2% 1	1,767	87.2% 1	\$540,258.06	206.2% 1	\$1,208.63	-10.9% #
Beauty & Wellness/Frequently Visits Salons	26,855	162.4%	1,895	69.3% 1	\$488,267.82	203.4%	\$1,122.45	-2.4% :
Sports & Fitness/Health & Fitness Buffs	20,088	183.2%	1,604	109.9%	\$459,957.16	257.5% 1	\$1,015.36	-14.0% #
Lifestyles & Hobbies/Outdoor Enthusiasts	23,247	197.4%	1,674	155.2% 1	\$365,765.78	220.0% 1	\$1,057.13	-5.7% :



KPI #1 - Actual vs. Goal - This Year





Best Practice:
Using Google
Trends by geo and
category shows
growing brand
interest over time

interest for a	Interest for		This Month
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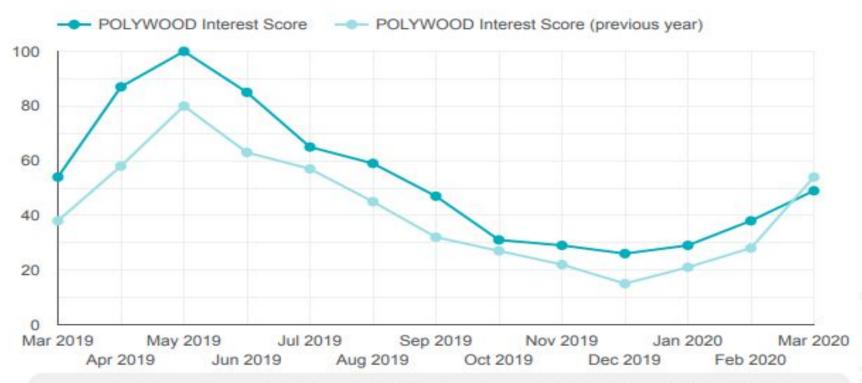
Query	Interest •	% Δ
polywood furniture	100	0.0%
polywood outdoor	64	-
polywood adirond	57	72.7%

1-3/3 < >

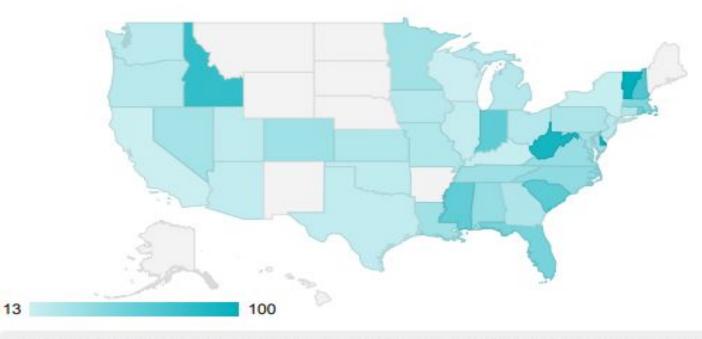
Category	Interest *	% △
Plastic lumber	100	0.0%
Furniture	27	35.0% 1
Chair	22	-52.0%
Adirondack chair	16.6	84.4% 1
Polywood Furnit	16	77.8% 1
	1-5/22	< >

Geographical Interest for POLYWOOD This Month

Region	Interest Score *		% Δ
Vermont	100		
Delaware	98		-
West Virginia	91		
Idaho	78		
New Hampshire	66		-
	1 - 5 / 51	<	>



*Numbers for Interest over Time represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term.



*For geographic locations, a higher value means a higher proportion of all queries, not a higher absolute query count. So a tiny country where 80% of the queries are for "bananas" will get twice the score of a giant country where only 40% of the queries are for "bananas".

Client Question: Which products are customers not converting on?

Action:

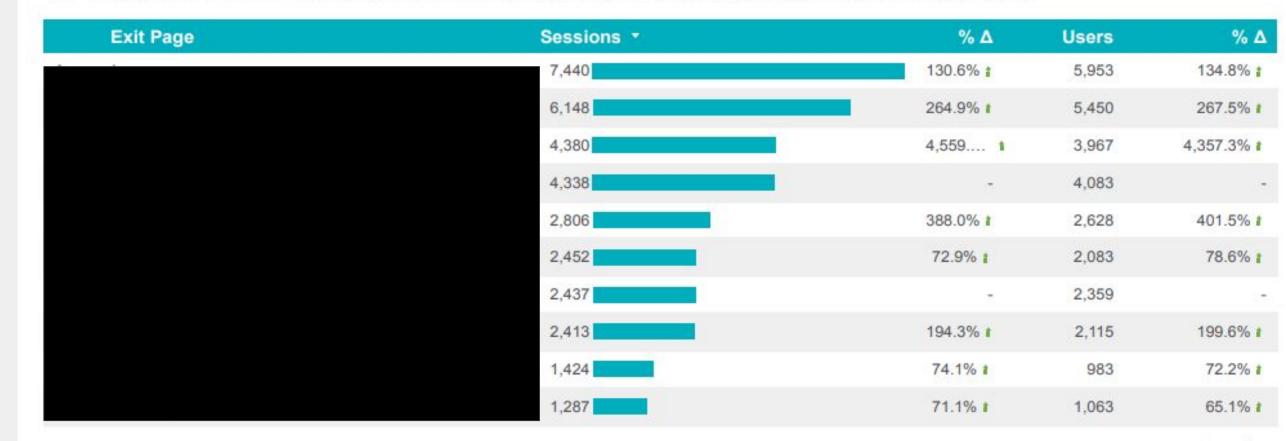
Tracking users that exited after viewing a product page and did not purchase, ranked by sessions (% change MoM)

Exit Trends - Product Page View w/out Purchase

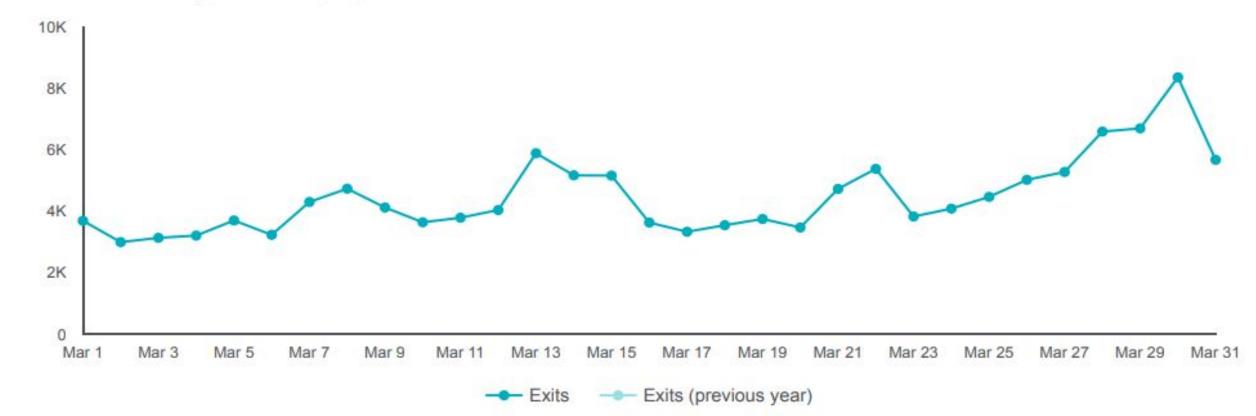
Mar 1, 2020 - Mar 31, 2020

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Top 10 Exit Pages For Users That Viewed a Product Page and Did Not Purchase Ranked by Sessions [% Change MoM]



How are Exits trending MoM for this group?



Users

Report Month

86,230

143% from previous month

0 from previous year

Previous Month

Users

35,548

Last Year Users

0

Analysis

Client Question: Which landing pages and blog content are bringing in the most new users vs. returning?

Report Month

New Users

Revenue

Last Year Revenue

Analysis

19,463

Previous Month

t, 69% from previous month

1 -16% from previous year

\$142,600.30

\$541,251.27

Action:
Top 10 Organic
Landing Pages by
New vs. Returning
Users

User Behavior - New vs. Returning

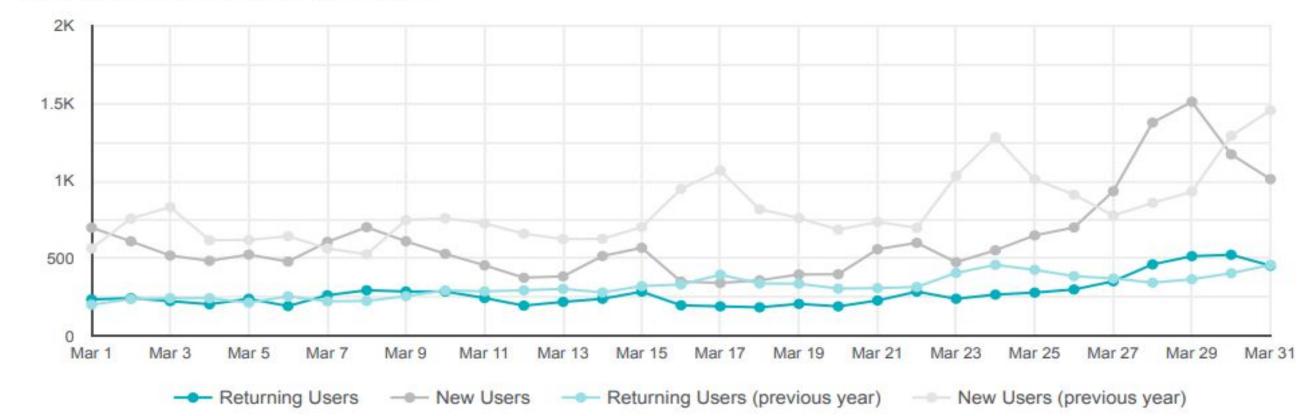
Top 10 Organic Landing Pages Ranked by New vs Returning Users [% Change MoM]

Landing Page	New Users ▼	% ∆	Returning Users	% ∆
1.	7,249	62.4% 1	1,866	92.2% 🛊
2.	1,274	80.5% :	300	156.4% 🛊
3.	773	110.6% 🛊	6	50.0% 🛊
4.	634	38.4% 1	160	150.0% #
5.	565	183.9% 1	0	-100.0%
6.	562	110.5% 1	143	160.0% #
7.	326	236.1% 1	38	245.5% 🕯
8.	301	109.0% 1	40	122.2% #
9.	189	33.1% :	158	83.7% 🛊
10.	169	148.5% :	93	173.5% :

Mar 1, 2020 - Mar 31, 2020

1 - 10 / 1248

How are New and Returning Users trending YoY?





of Tracked Keywords

0% from previous month

Unique URLs on Page 1

332% from previous month

ctive 1 - V1

of Page 1 Rankings

1,051

920

11,666

Best Practice:
Keyword rank
buckets to show
shifts in ranking over
time without
overwhelming the
client

Organic Keyword Ranking Trends

Keywords by Rank Buckets Over Time (Last 6 Months)



Which Pages Moved Onto Page 1 by the Largest Rank Change?

URL	keyword	Rank Change *	Rank	MSV
www.seerinteractive.com/blog/transfer-ownership-google-business-page- matters/	transfer ownership of gmail account	-13	1	30
www.seerinteractive.com/blog/new-google-expanded-text-ad-format/	google new format	-13	1	90
www.seerinteractive.com/blog/measure-marketing-attribution-360/	google attribution 360	-12	2	140
www.seerinteractive.com/blog/lm-facebook-com-in-ga-what-is-it/	im.facebook	-11	9	110
www.seerinteractive.com/about/team/larry-waddell/	larry waddell	-10	1	70
www.seerinteractive.com/blog/mastering-ppc-what-is-an-mcc-why-do-agencies- use-it/	mcc account google ads	-8	10	20
www.seerinteractive.com/blog/a-beginners-guide-to-adobe-analytics/	adobe web analytics	-6	9	110
www.seerinteractive.com/blog/semrush/	semrush	-6	9	49500
www.seerinteractive.com/blog/screaming-frog-guide/	screaming frog	-4	8	14800
www.seerinteractive.com/blog/google-sheets-scripts/	sheet.getrange	-4	9	260

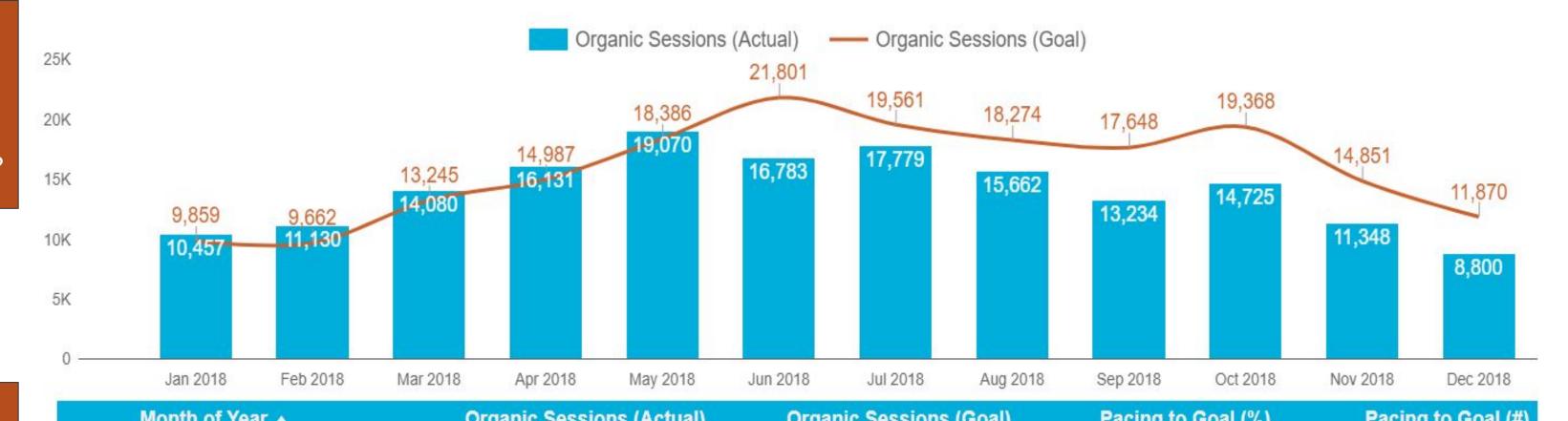
Dec 1, 2018 - Dec 31, 2018 - FILTER: Content Grouping - FILTER: Sub Group - Organic Filter - PPC Filter - PPC Filter

Client Question:

Can you show me our data and how close we are to achieving our goals?

Action:

Combo chart with actuals and goals and a Table with Goals by Month of Year



3. Mar 2018 14,080 13,245 6% 835 4. Apr 2018 16,131 14,987 8% 1,144 5. May 2018 19,070 18,386 4% 684 6. Jun 2018 16,783 21,801 -23% -5,018 7. Jul 2018 17,779 19,561 -9% -1,782 8. Aug 2018 15,662 18,274 -14% -2,612		Month of Year -	Organic Sessions (Actual)	Organic Sessions (Goal)	Pacing to Goal (%)	Pacing to Goal (#)
3. Mar 2018 14,080 13,245 6% 835 4. Apr 2018 16,131 14,987 8% 1,144 5. May 2018 19,070 18,386 4% 684 6. Jun 2018 16,783 21,801 -23% -5,018 7. Jul 2018 17,779 19,561 -9% -1,782 8. Aug 2018 15,662 18,274 -14% -2,612 9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	1.	Jan 2018	10,457	9,859	6%	598
4. Apr 2018 16,131 14,987 8% 1,144 5. May 2018 19,070 18,386 4% 684 6. Jun 2018 16,783 21,801 -23% -5,018 7. Jul 2018 17,779 19,561 -9% -1,782 8. Aug 2018 15,662 18,274 -14% -2,612 9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	2.	Feb 2018	11,130	9,662	15%	1,468
5. May 2018 19,070 18,386 4% 684 6. Jun 2018 16,783 21,801 -23% -5,018 7. Jul 2018 17,779 19,561 -9% -1,782 8. Aug 2018 15,662 18,274 -14% -2,612 9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	3.	Mar 2018	14,080	13,245	6%	835
6. Jun 2018 16,783 21,801 -23% -5,018 7. Jul 2018 17,779 19,561 -9% -1,782 8. Aug 2018 15,662 18,274 -14% -2,612 9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	4.	Apr 2018	16,131	14,987	8%	1,144
7. Jul 2018 17,779 19,561 -9% -1,782 8. Aug 2018 15,662 18,274 -14% -2,612 9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	5.	May 2018	19,070	18,386	4%	684
8. Aug 2018 15,662 18,274 -14% -2,612 9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	6.	Jun 2018	16,783	21,801	-23%	-5,018
9. Sep 2018 13,234 17,648 -25% -4,414 10. Oct 2018 14,725 19,368 -24% -4,643 11. Nov 2018 11,348 14,851 -24% -3,503	7.	Jul 2018	17,779	19,561	-9%	-1,782
10. Oct 2018 11. Nov 2018 12. 11,348 13. 14,851 14,851 -24% -3,503	8.	Aug 2018	15,662	18,274	-14%	-2,612
11. Nov 2018 11,348 14,851 -24% -3,503	9.	Sep 2018	13,234	17,648	-25%	-4,414
	10.	Oct 2018	14,725	19,368	-24%	-4,643
12. Dec 2018 8,800 -26% -3,070	11.	Nov 2018	11,348	14,851	-24%	-3,503
	12.	Dec 2018	8,800	11,870	-26%	-3,070

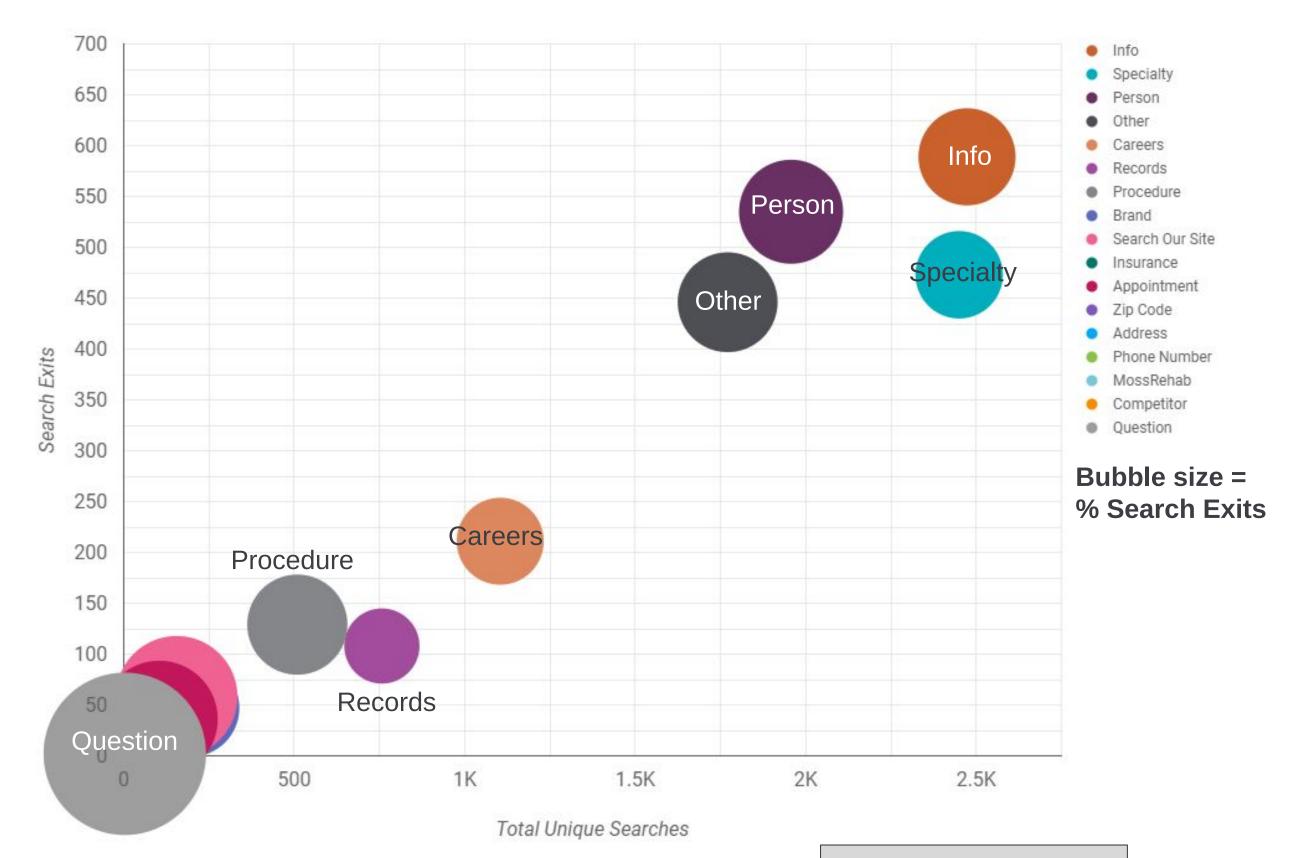
Site Search Categories

In an effort to better understand site search trends, the Seer team categorized six thousand site searches from this year.

The majority of searches on Einstein are general Information searches (21%), searches about a Specialty (21%) (Neurology, OBGYN), or searches for a specific person (16%) at CLIENT

Best Practice: Using bubble charts when possible to get points across simply

Information, specialty, and searches for a specific person dominate site search



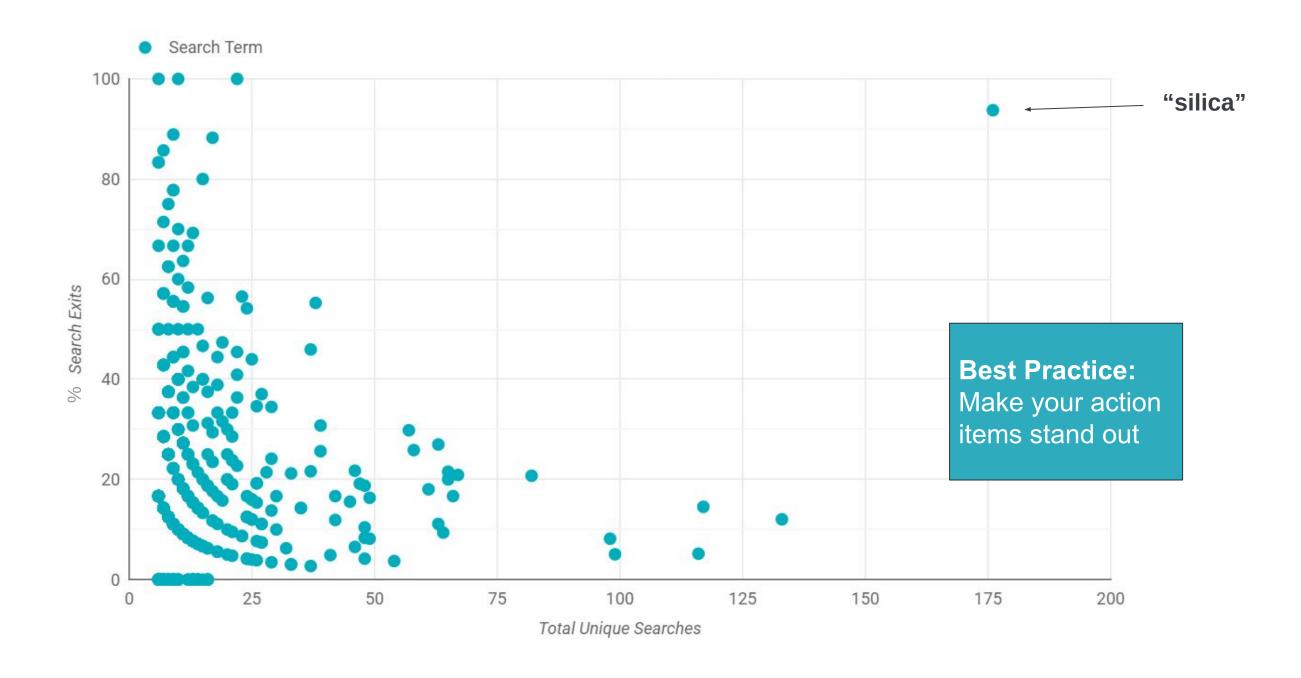
Site Content Opportunity

Search terms with high traffic and high % search exits typically suggest a content gap or point of friction.

As previously highlighted, the "silica" search term has both a high number of total unique searches (176) and a high % search exit (94%).

Other search terms with high % search exits above 60% have a comparatively low number of unique searches.

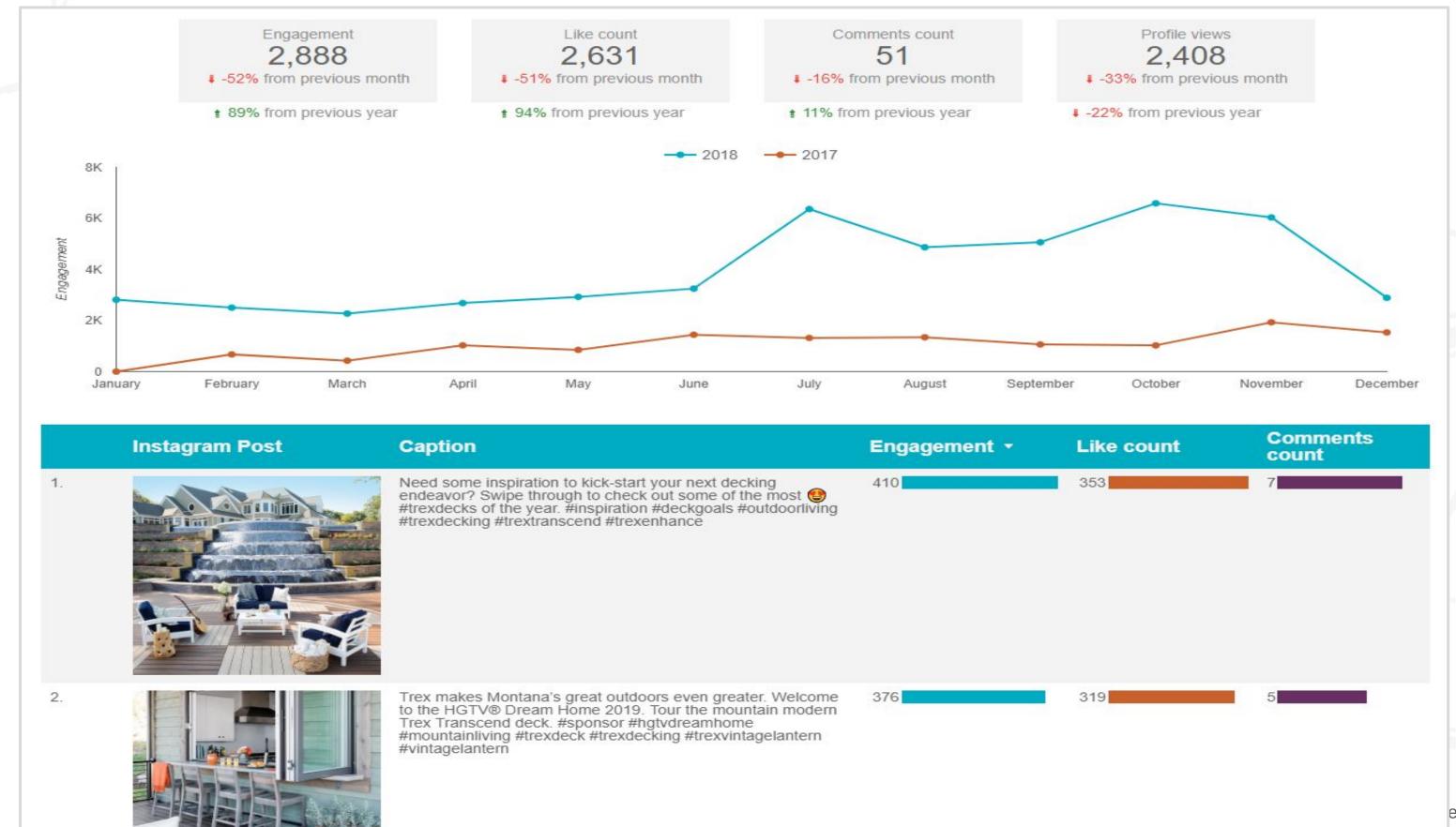
The "silica" search term represents an outlier with a high number of unique searches and % search exits.



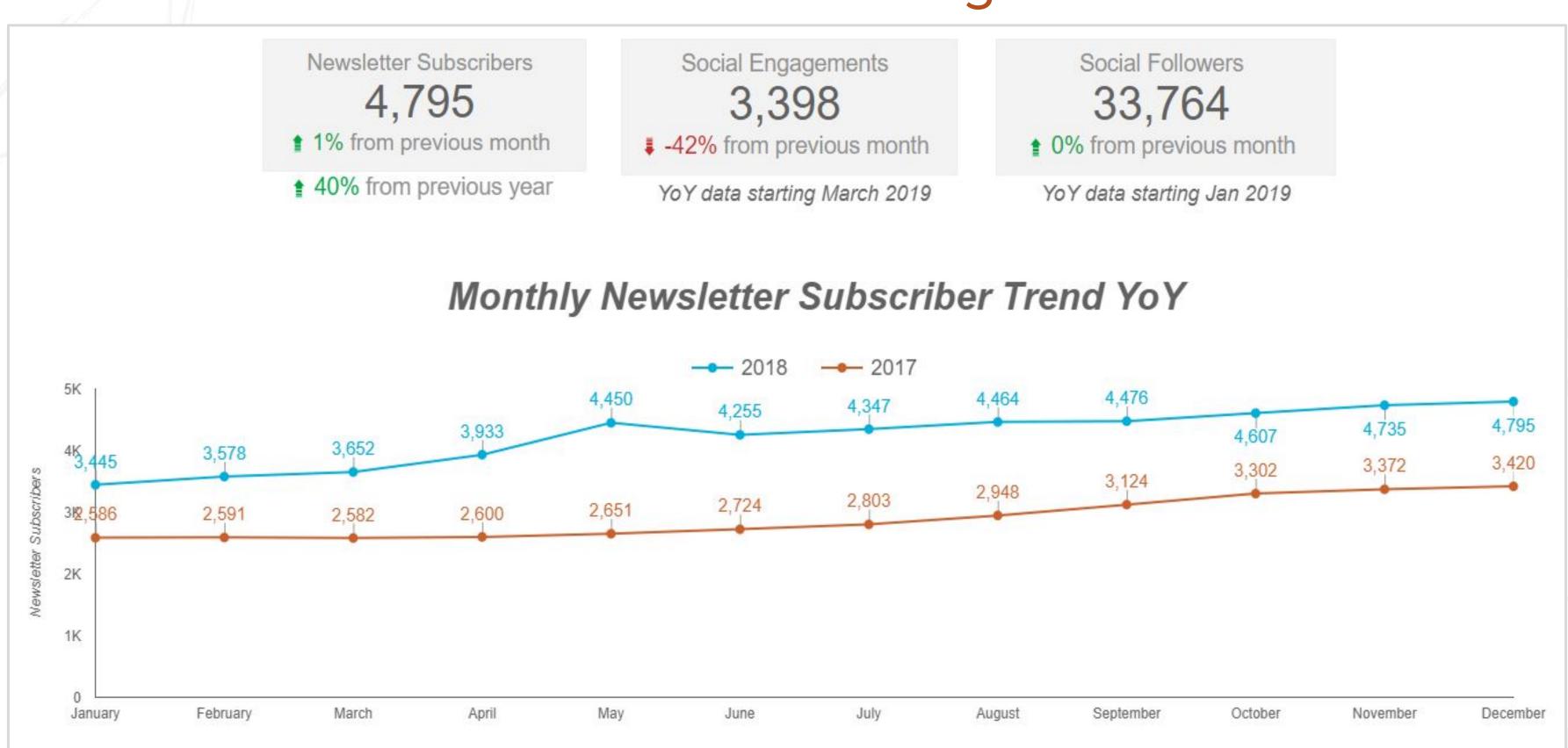




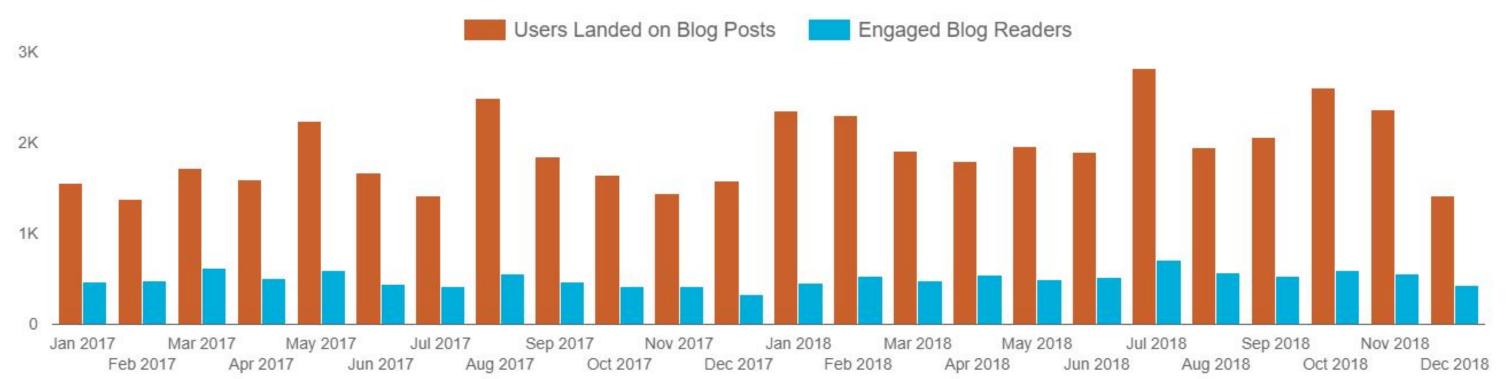
In-Depth Social, including pictures of Posts



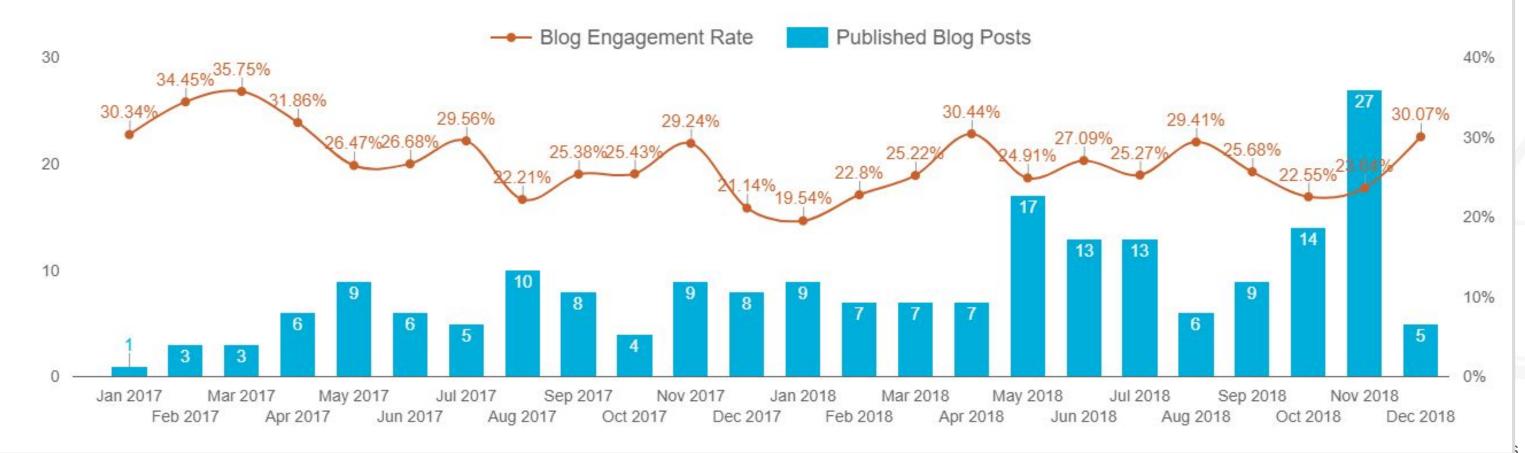
Email and Social Leading Indicators







Trend of Blog Post Frequency vs Engagement Rate YoY



Facebook Ads Performance

Mar 1, 2020 - Mar 31, 2020

Campaign

Revenue

\$49,217.51

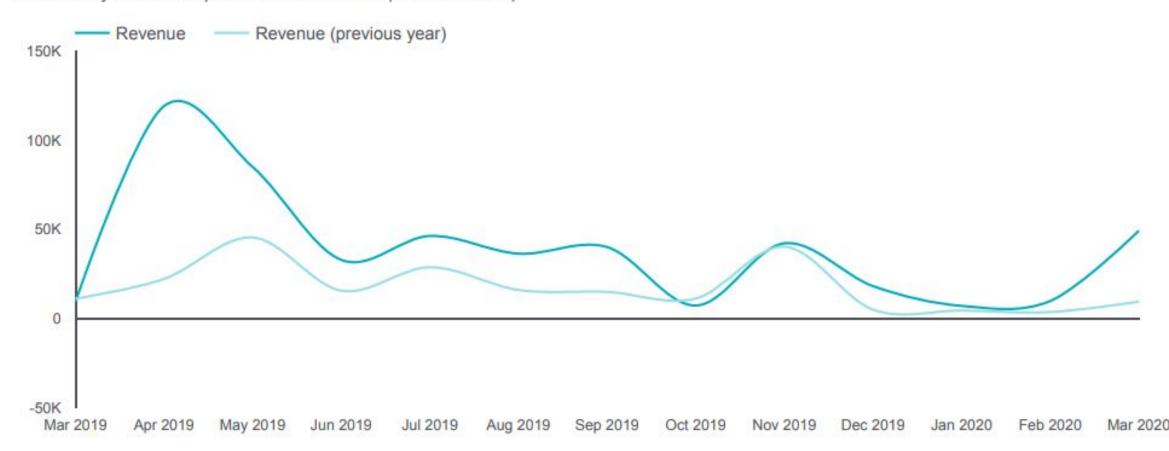
- # 403% from previous month
- # 424% from previous year

Avg. Order Value

\$984.35

- ₹ 61% from previous month
- # 47% from previous year

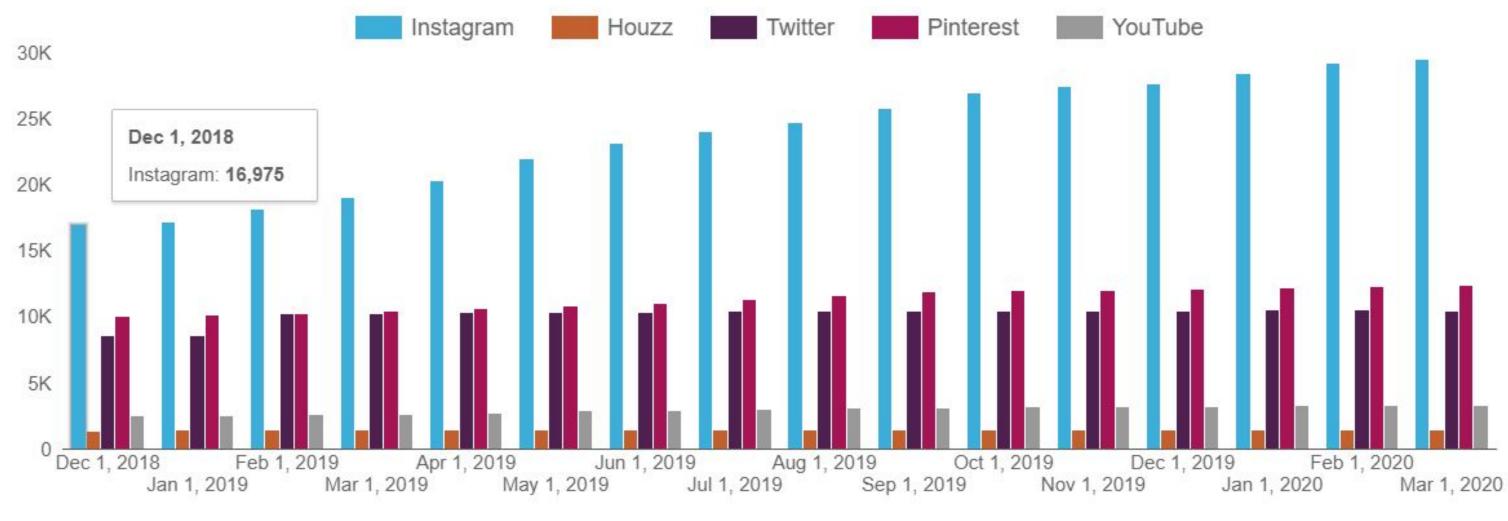
Revenue by Month Compared to Previous Year (Last 13 Months)



					_	_		_	
Revenue,	AOV	and	CVR by	Ad	Content	for	Last	Month	(MoM)
110101100		C11101	~ * * * * * * * * * * * * * * * * * * *	7 1 0		1.01		141-011-11	[

Neverlue, AOV, and OVN by Au	Content for Last Month (MON)					
Ad Content	Revenue *	% Δ	AOV	% △	Ecomm CVR	% Δ
retargeting-DPA	\$29,010.63	386.1%	\$1,160.43	75.0% 1	0.56%	65.1% #
broad-DPA	\$15,388.93	449.1%	\$809.94	44.5% 1	0.19%	-26.6%
(not set)	\$4,817.95	373.4% 🛊	\$802.99	57.8%	0.04%	48.2% #
prospecting	\$0		\$0		0%	.2
genuine	\$0		\$0	12	0%	2





	Platform	Current Followers	Last Month Followers	# Change •	% Change
1.	Instagram	29,560	29,221	339	1.2%
2.	Facebook	599,089	598,956	133	+0.0%
3.	Pinterest	12,430	12,304	126	1.0%
4.	Youtube	3,370	3,320	50	1.5%
5.	Houzz	1,435	1,432	3	0.2%
6.	Twitter	10,499	10,522	-23	-0.2%
				0 100	200 300 -0.0% 0.5% 1.0% 1.5

Screenpresso .com

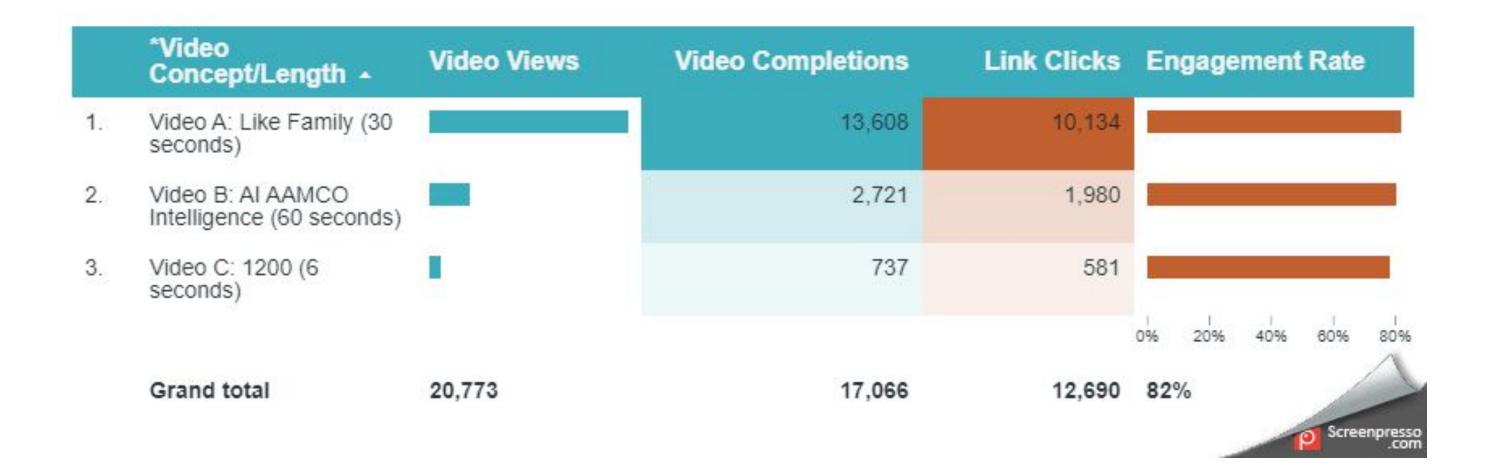
0.6%

[EXAMPLE] Video Performance Dashboard

*uses dummy data set - does not contain data as described



FILTER BY:	Video Views
YouTube Ads	13,608
Programmatic	2,721
Social	737







*If your date range is greater than 7 days, you may be viewing sampled data. Please verify in Google Analytics.

Select from the filters below to view specific social efforts.

Mar 24, 2020 - Apr 20, 2020

Medium

Source

Performance Snapshot

Sessions

Transactions

1,884

5

Ecomm Conv. Rt.

Quantity

0.3%

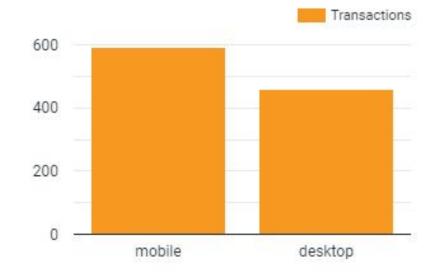
6

Revenue

\$1,971

Social Direct Store Transactions Overview





Direct Store Transactions Break-Out by Social Effort

	Medium	Source	Sessions *	Revenue	Unique Purchases	Quantity
1.	referral	m.facebook.com	580	\$865.75	3	3
2.	referral	youtube.com	511	\$0	0	0
3.	paid-social	facebook	230	\$0	0	0
4.	referral	I.facebook.com	123	\$496.53	2	2
5.	referral	quora.com	99	\$0	0	0
6.	paid-social	instagram	81	\$0	0	0
7.	referral	facebook.com	71	\$0	0	0
8.	referral	t.co	38	\$0	0	0
9	social	facebook	38	Šū	0 1 - 10 / 24	n < >

7-	City	Sessions	Revenue +	Unique Purchases	Quantity
1.	Phoenix	7	\$609	1	1
2.	Brentwood	4	\$434.72	2	2
3.	St. Louis Park	1	\$431.03	1	1
4.	Berea	7	\$344.49	1	1,
5.	Malden	1	\$152.04	1	

Date Source: Google Analytics

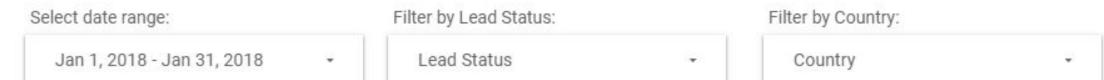


Lead Performance Details

Source: Marketo

Data Last Updated: Feb. 7, 2017

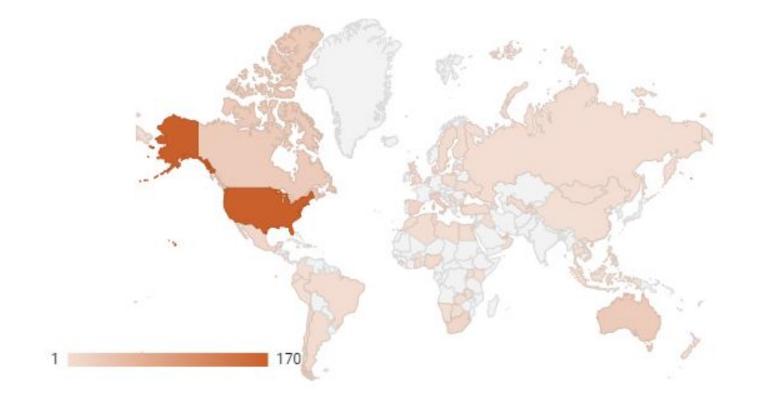
Lead status by country across xylem.com

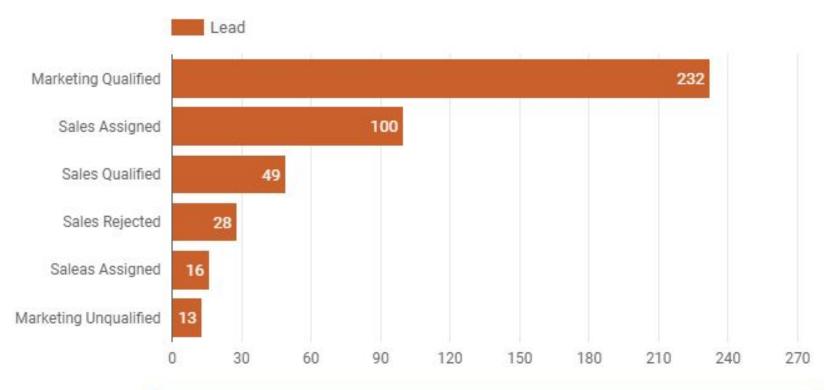


Total Leads 4,458 # -81.8% Status Assigned Leads
436
4-76.5%

Total Digital Leads
180
-33.8%

Digital Status Assigned Leads
103
1-9.6%



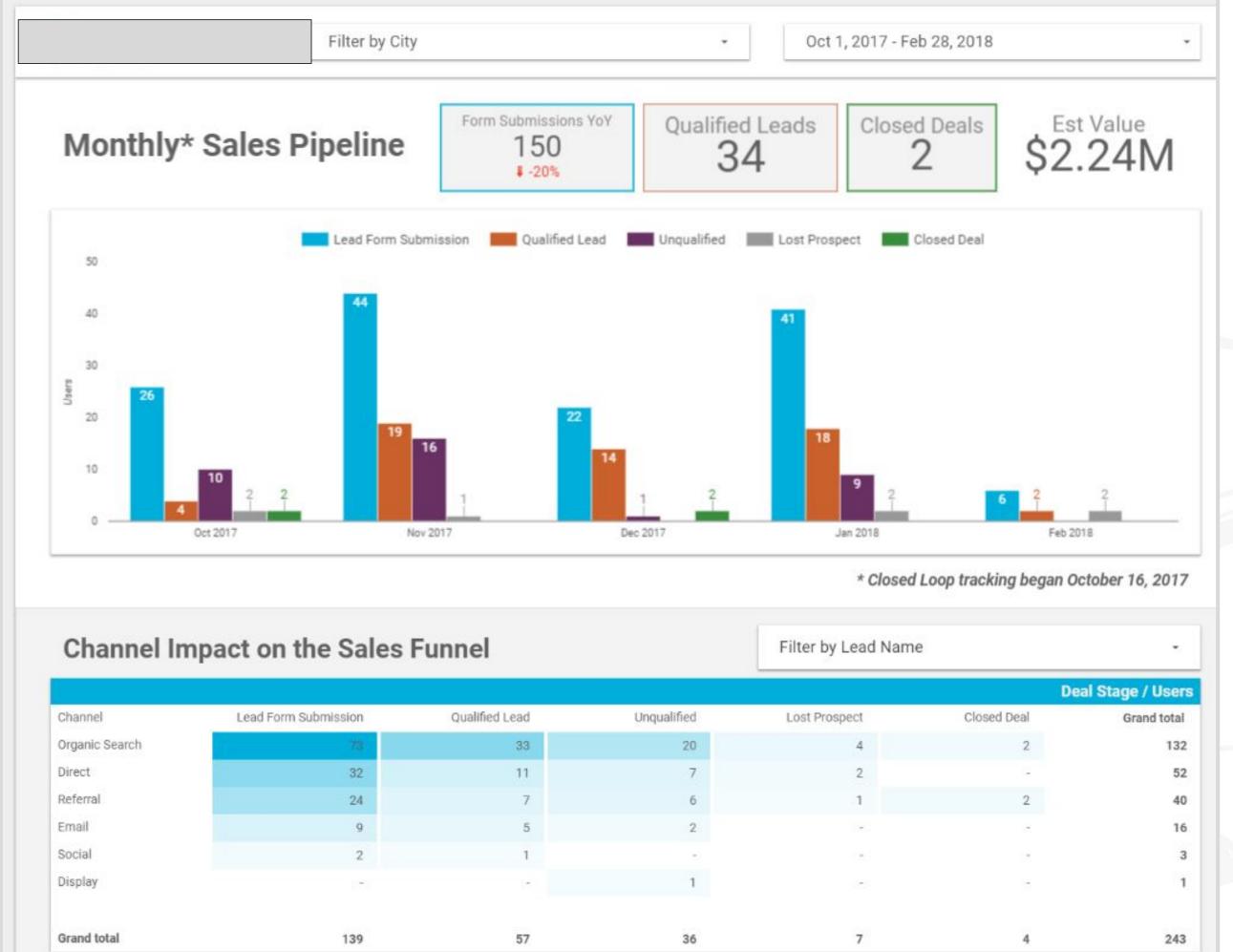


	Lead Source	Lead ★
1.	null	334
2.	Email/Web Inquiry	48
3.	Website	33
4.	Web	19

120

Lead

ie 35





Google Ads Performance Overview

Mar 1, 2020 - Mar 31, 2020

Campaign

ROAS

10.86

- 12% from previous month
- # 47% from previous year

Revenue

\$1,851,299.00

- ★ 283% from previous month
- ₱ 96% from previous year

ROAS by Month Compared to Previous Year (Last 13 Months)



Revenue and ROAS	by Ad Group for Last Month (M	loM)
Ad avairs		

Revenue and ROAS by Ad Group for Last Month (MoM)			1,			
Ad group	Clicks	% Δ	Revenue @ *	% ∆	ROAS 0 -	% Δ
	1	-	\$1,734		443.62	-
	1	5	\$168	-	303.73	
	12	\$	\$5,602		292.94	-
	3	-	\$1,556		292.03	-
	24	-	\$2,750		105.63	
	35	-18.6% !	\$10,144		80.03	8,103.3% #
	10	2	\$1,817	2	66.29	-
	12	-	\$1,654		64.66	-
	42	162.5% 1	\$11,454		61.25	6,225.3% :
	48	-	\$6,330	-	52.39	-
					1 - 10 / 1273	< >

ROAS

10.41

- 3 -3% from previous month
- ₹ 79% from previous year

Revenue

\$726,463.00

- # 430% from previous month
- # 134% from previous year

ROAS by Month Compared to Previous Year (Last 13 Months)



Revenue and ROAS by Ad Group for Last Month (MoM)

7						
Ad group	Clicks	% Δ	Revenue @ *	% ∆	ROAS •	% ∆
All Products	340,329	218.0% 1	\$5,716,141	242.3% 🛊	6.05	10.3% :
All products	41	5	\$0	7.	-1	(5)
Adirondack Chairs	0	-100.0% #	\$0	-100.0% \$		-
Rocking Chairs	0	-100.0% #	\$0	-100.0%		(40)
Showcase #1	0	-	\$0	=		-
Showcase #2	0		\$0			1000

Campaign



Phone calls

13,421

- ₹ -16% from previous year
- # -16% from previous year

Total photo views

8,570,495

- 102% from previous year
- 105.0% from previous year

Directions requests

486,764

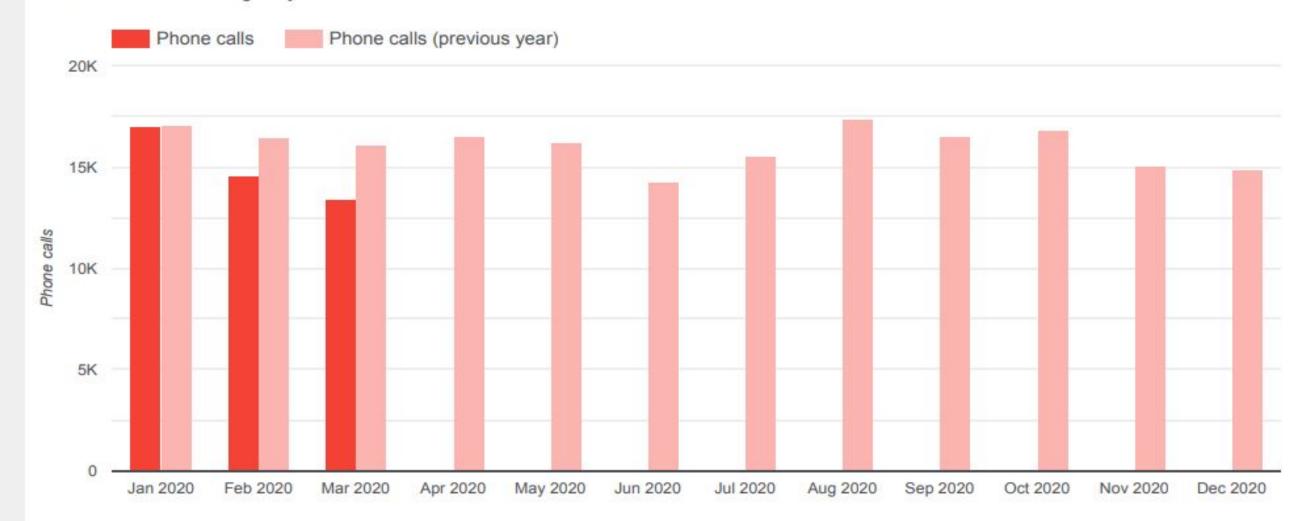
- 13% from previous year
- -17% from previous year

Tip:

Great example of a quick, easy dashboard for GMB Visualizations

Google My Business Trends [Phone Calls and GMB Actions]

Phone Calls from Google My Business



Phone Calls from Google My Business by Location





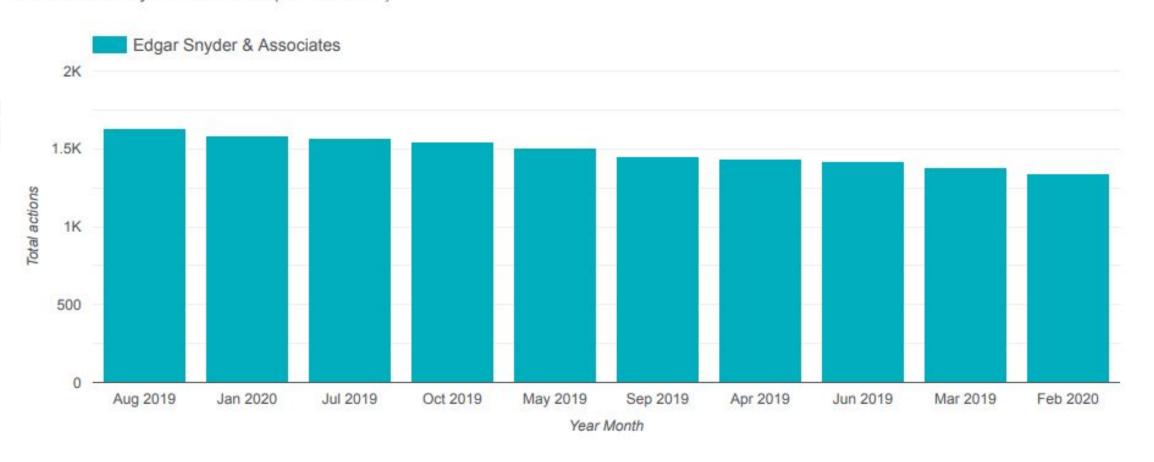
Local GMB Performance - Actions

Locations

5

0% from previous month

Total Searches by Location Name (Last 6 Months)



How Did People Interact With Your Listing MoM?

Location Name	Store Code	Directions	% A	Calls	% Δ	Website	% Δ
	001	29	-61.3% #	351	-18.0% #	478	-14.0% !
	005	5	0.0%	50	-5.7% #	67	52.3% 1
	004	2	-50.0% #	33	-8.3% #	31	-3.1% :
	002	8	33.3% 1	22	-31.3% #	23	-4.2% :
	003	2	-50.0% #	10	-44.4% #	14	55.6% 1

Local GMB Performance - Searches

Locations
5
0% from previous month

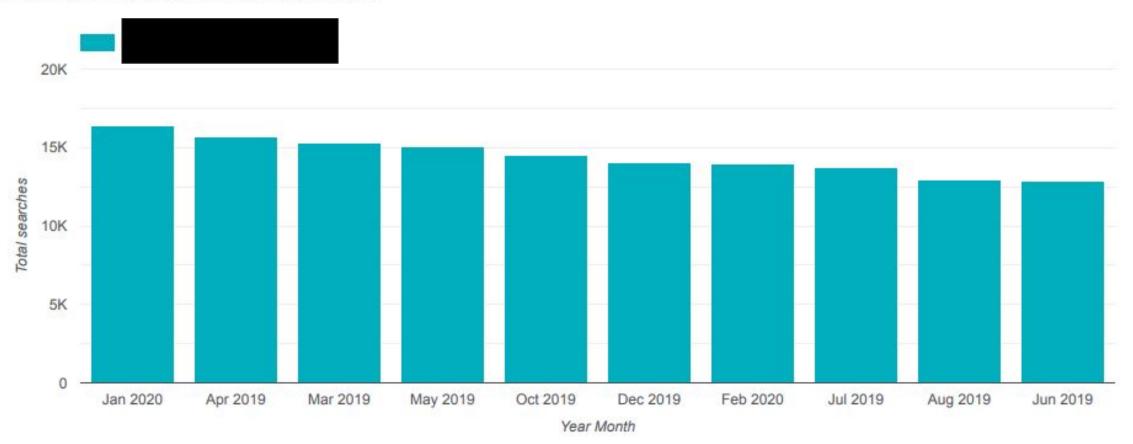
Total searches
11,291

-18% from previous month

Total views
11,552

-22% from previous month

Total Searches by Location Name (Last 6 Months)



How Did People Search for Your Listing MoM?

ocation Name	Store Code	Branded	% Δ	Unbranded	% Δ
	001	1,681	-23.5% #	5,261	-26.8% #
	005	170	-35.4% #	1,156	-2.7% :
	002	63	-37.0% #	1,036	12.0% 1
	003	28	-65.4% #	786	5.2% 1
	004	145	22.9% 1	618	8.2%