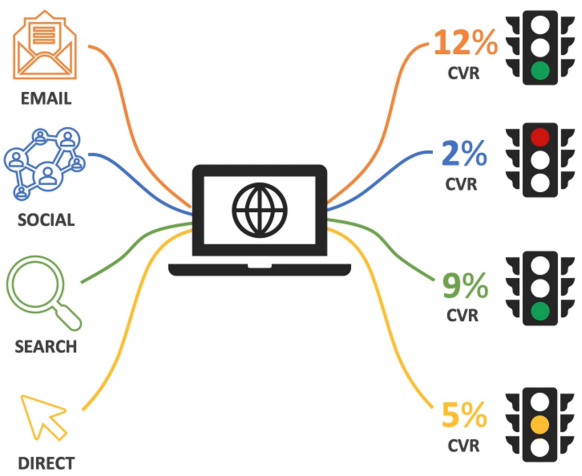
Traffic Source Analysis

30 July 2023 07:50

BUSINESS CONCEPT: TRAFFIC SOURCE ANALYSIS

Traffic source analysis is about understanding **where your customers are coming from** and **which channels are driving the highest quality traffic**



COMMON USE CASES:

- Analyzing search data and shifting budget towards the engines, campaigns or keywords driving the strongest conversion rates
- Comparing user behavior patterns across traffic sources to inform creative and messaging strategy
- Identifying opportunities to eliminate wasted spend or scale high-converting traffic

KEY TABLES: WEBSITE SESSIONS, PAGEVIEWS & ORDERS

WEBSITE_SESSIONS

```
SELECT * FROM website_sessions WHERE website_session_id = 1059
```

website_session_id	created_at	user_id	is_repeat_session	utm_source	utm_campaign	utm_content	device_type	http_referer
1059	2012-03-26 13:51:37	1055	0	gsearch	nonbrand	g_ad_1	desktop	https://www.gsearch.com

WEBSITE_PAGEVIEWS

```
SELECT * FROM website_pageviews WHERE website_session_id = 1059
```

website_pageview_id	created_at	website_session_id	pageview_url
2039	2012-03-26 13:51:37	1059	/home
2040	2012-03-26 13:54:27	1059	/products
2041	2012-03-26 13:56:48	1059	/the-original-mr-fuzzy
2042	2012-03-26 14:00:14	1059	/cart
2043	2012-03-26 14:04:06	1059	/shipping
2044	2012-03-26 14:05:47	1059	/billing
2045	2012-03-26 14:13:56	1059	/thank-you-for-your-order

ORDERS

```
SELECT * FROM orders WHERE website_session_id = 1059
```

order_id	created_at	website_session_id	user_id	primary_product_id	items_purchased	price_usd	cogs_usd
32	2012-03-26 14:13:56	1059	1055	1	1	49.99	

PAID MARKETING CAMPAIGNS: **UTM TRACKING PARAMETERS**

When businesses run paid marketing campaigns, they often obsess over performance and measure *everything*; how much they spend, how well traffic converts to sales, etc.

Paid traffic is commonly tagged with tracking (UTM) parameters, which are appended to URLs and allow us to tie website activity back to specific traffic sources and campaigns

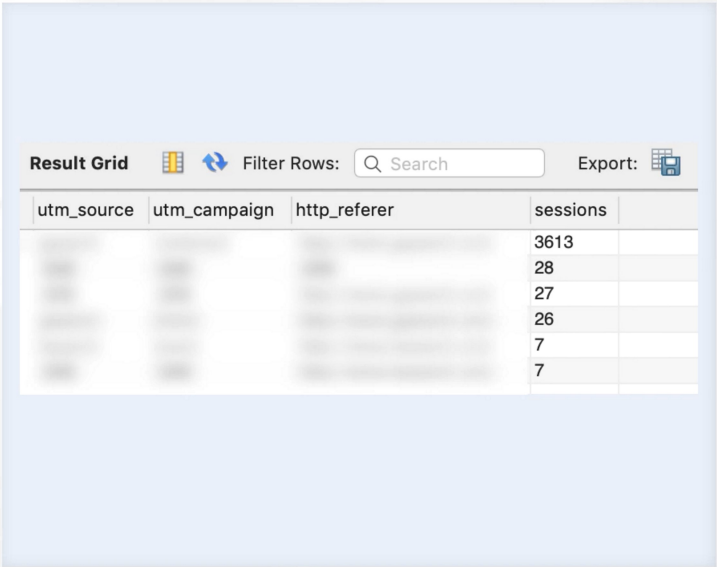
www.abcwebsite.com?utm_source=trafficSource&utm_campaign=campaignName

WEBSITE_SESSIONS

```
SELECT DISTINCT
        utm_source,
        utm_campaign
FROM website_sessions
```

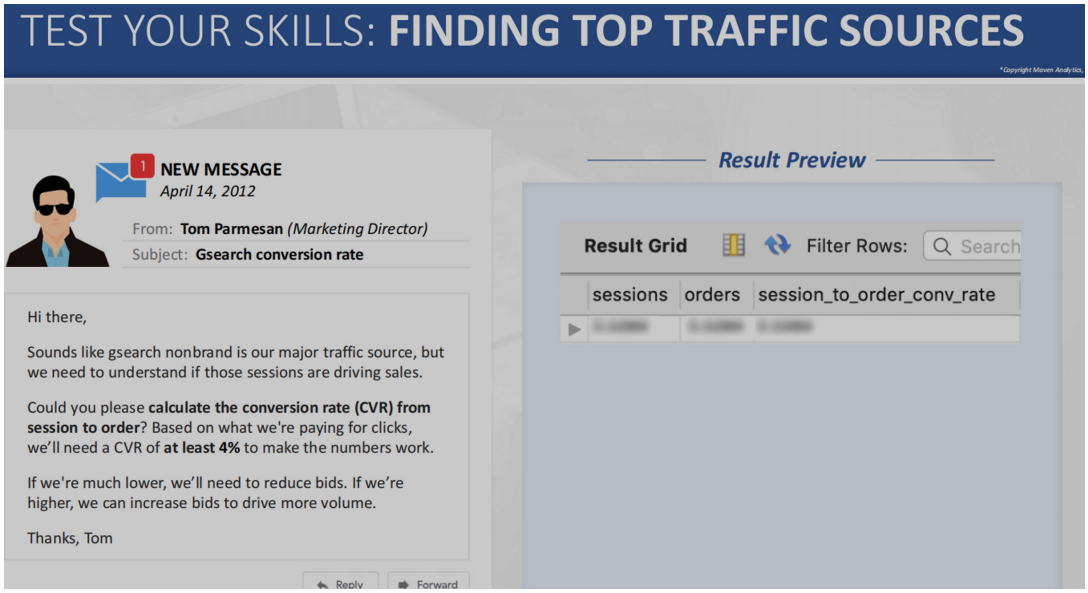
utm_source	utm_campaign
NULL	NULL
bsearch	brand
bsearch	nonbrand
gsearch	brand
gsearch	nonbrand
socialbook	desktop_targeted
socialbook	pilot

Result Preview



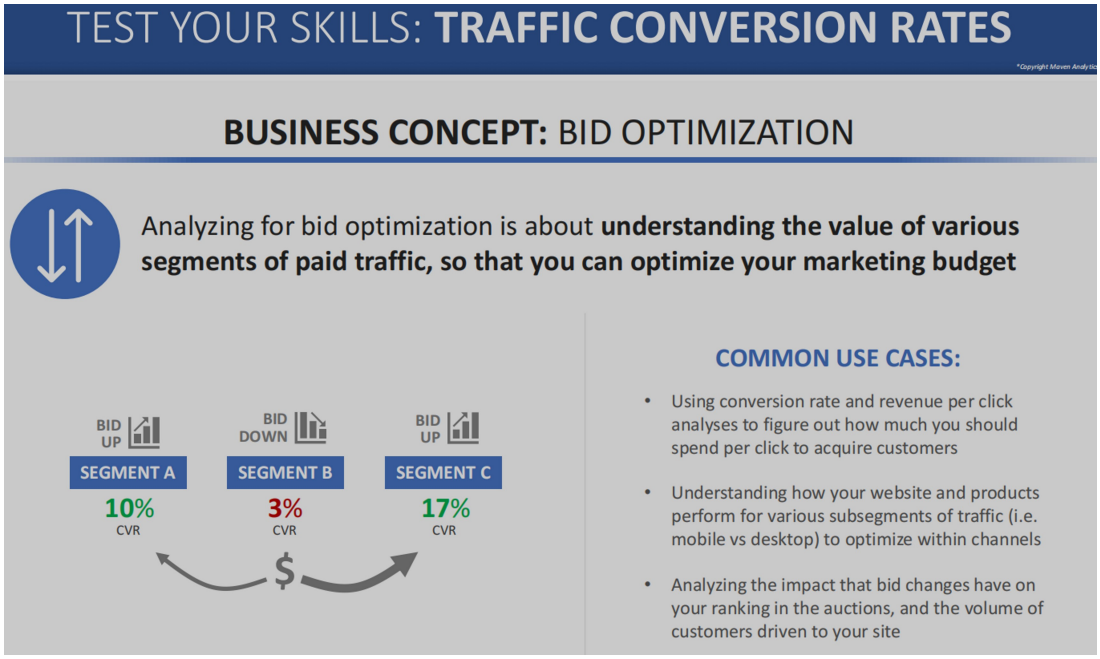
TEST YOUR SKILLS: **FINDING TOP TRAFFIC SOURCES**

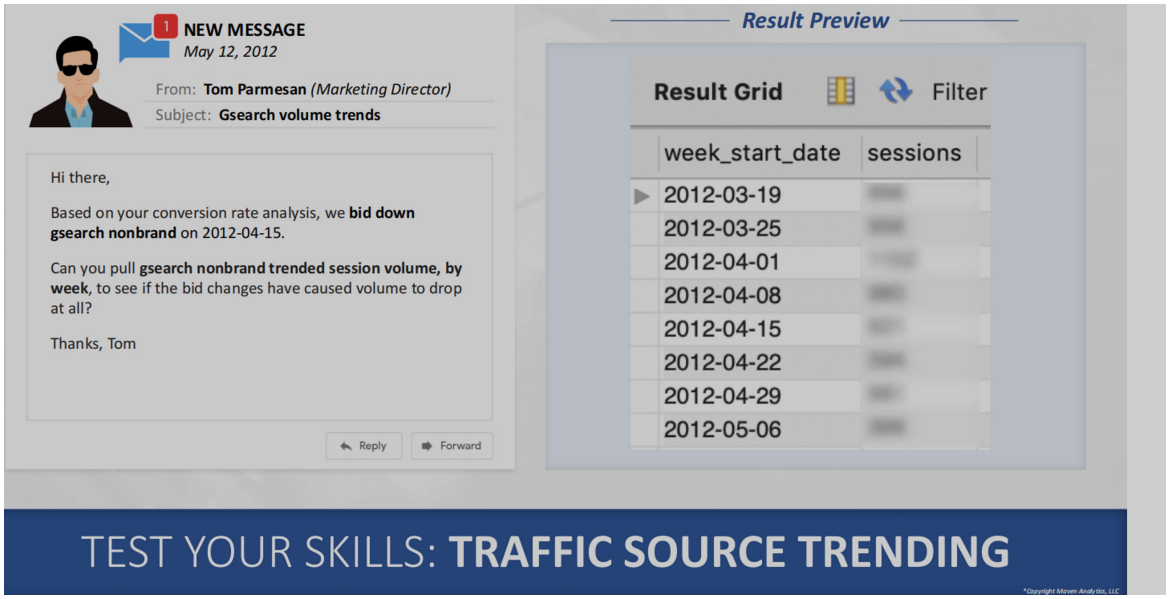
```
select
utm_source,utm_campaign,http_referer,count(distinct
website_session_id)
from website_sessions where created_at < '2012-04-12'
group by 1,2,3
```



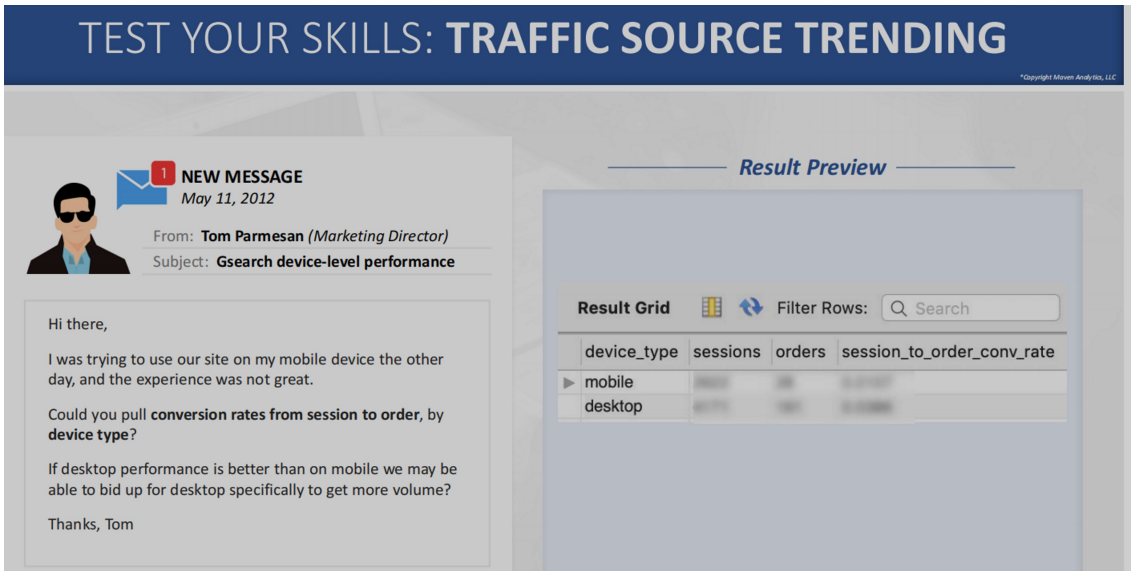
Gsearch conversion rates

```
select count(distinct a.website_session_id) as sessions ,
count(distinct b.order_id) as orders,
count(distinct b.order_id)/count(distinct
a.website_session_id) as rate
from website_sessions a left join orders b on
a.website_session_id=b.website_session_id  where
a.created_at < '2012-04-14' and
a.utm_source='gsearch'
and
a.utm_campaign='nonbrand'
```






```
select min(date(created_at)),count(website_session_id)
from website_sessions  where created_at < '2012-05-10'
and
utm_source='gsearch'
and
utm_campaign='nonbrand'
group by year(created_at),week(created_at)
```




```
select a.device_type ,count(distinct
a.website_session_id) as sessions ,
count(distinct b.order_id) as orders,
count(distinct b.order_id)/count(distinct
a.website_session_id) as rate
from website_sessions a left join orders b on
a.website_session_id=b.website_session_id  where
a.created_at < '2012-05-11' and
a.utm_source='gsearch'
and
a.utm_campaign='nonbrand'
group by 1
```

TEST YOUR SKILLS: **TRAFFIC SOURCE BID OPTIMIZATION**

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NEW MESSAGE
June 09, 2012

From: **Tom Parmesan** *(Marketing Director)*
Subject: **Gsearch device-level trends**

Hi there,

After your device-level analysis of conversion rates, we realized desktop was doing well, so **we bid our gsearch nonbrand desktop campaigns up on 2012-05-19.**

Could you pull **weekly trends for both desktop and mobile** so we can see the impact on volume?

You can use 2012-04-15 until the bid change as a baseline.

Thanks, Tom

Reply Forward

Result Preview

Result Grid Filter Rows: Search

week_start_date	dtop_sessions	mob_sessions
2012-04-15	[illegible]	[illegible]
2012-04-22	[illegible]	[illegible]
2012-04-29	[illegible]	[illegible]
2012-05-06	[illegible]	[illegible]
2012-05-13	[illegible]	[illegible]
2012-05-20	[illegible]	[illegible]
2012-05-27	[illegible]	[illegible]
2012-06-03	[illegible]	[illegible]

```
select min(date(created_at)),
count(distinct case when device_type='mobile' then
website_session_id end )as mob,
count(distinct case when device_type='desktop' then
website_session_id end )as desk
from website_sessions  where created_at > '2012-04-15'
and created_at < '2012-06-9' and
utm_source='gsearch'
and
utm_campaign='nonbrand'
group by year(created_at),week(created_at)
```