



CoolTShirts (CTS)

Digital Marketing Research and Analysis

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1. Get familiar with CoolTShirts

1.1 How many campaigns and sources does CoolTShirts use?

CoolTShirts (CTS) sells shirts of all kinds, as long as they are T-shaped and cool. Recently, CTS started a few marketing campaigns to increase website visits and purchases.

- CoolTShirts (CTS) is running 8 distinct campaigns (utm_campaign).
- CoolTShirts (CTS) is delivering their campaigns to 6 distinct sources (utm_source).

Number of Distinct Campaigns
(utm_campaign)

8

Number of Distinct Sources
(utm_source)

6

```
/*
Query to find the number of distinct campaigns
*/

SELECT COUNT(DISTINCT utm_campaign) AS 'Number of
Distinct Campaigns'
FROM page_visits;

/*
Query to find number of distinct sources
*/

SELECT COUNT(DISTINCT utm_source) AS 'Number of
Distinct Sources'
FROM page_visits;
```

1.2 How are they related?

The two utm parameters are related through CTS's use of campaigns (utm_campaign) delivered to sources (utm_source) in order to generate unique engagement and drive revenue for CTS.

Campaign Name	Source Name
getting-to-know-cool-tshirts	nytimes
weekly-newsletter	email
ten-crazy-cool-tshirts-facts	buzzfeed
retargetting-campaign	email
retargetting-ad	facebook
interview-with-cool-shirts-founder	medium
paid-search	google
cool-tshirts-search	google

```
/*  
Query to find relation between campaigns and sources  
*/  
  
SELECT DISTINCT utm_campaign AS 'Campaign Name',  
                utm_source AS 'Source Name'  
FROM page_visits;
```

1.3 What pages are on their website?

CoolTShirts (CTS) currently has four pages on their website, in order from the Landing Page, Shopping Cart Page, Checkout Page, and Purchase Page.

Pages on CoolTShirts Website

1 - landing_page

2 - shopping_cart

3 - checkout

4 - purchase

```
/*
Query to find pages on CoolTShirts
*/

SELECT DISTINCT page_name AS 'Pages on the
CoolTShirts Website'
FROM page_visits;
```

2. What is the user journey?

2.1 How many first touches is each campaign responsible for?

First touch attributions across all campaigns by can be matched by 'first_touch' to 'page_views' on user_id and timestamp in 'first_touch_attr'

Then select utm_source, utm_campaign, and count the number of first touch attributes. We can then group by utm_campaign and display the total number of first touches for each campaign in a descending order.

Source	Campaign	Total Count
medium	interview-with-cool-tshirts-founder	622
nytimes	getting-to-know-cool-tshirts	612
buzzfeed	ten-crazy-cool-tshirts-facts	576
google	cool-tshirts-search	169

```
/*
Query to count first touches per campaign and source
*/

WITH first_touch AS (
    SELECT user_id,
           MIN(timestamp) as first_touch_at
    FROM page_visits
    GROUP BY user_id),
ft_attr AS (
    SELECT ft.user_id,
           ft.first_touch_at,
           pv.utm_source,
           pv.utm_campaign
    FROM first_touch ft
    JOIN page_visits pv
        ON ft.user_id = pv.user_id
        AND ft.first_touch_at = pv.timestamp)
SELECT ft_attr.utm_source AS 'Source',
       ft_attr.utm_campaign AS 'Campaign',
       COUNT(*) AS 'Total Count'
FROM ft_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```


2.2 How many last touches is each campaign responsible for?

Last touch attributions across all campaigns can be queried by matching 'last_touch' to 'page_views' on user_id and timestamp in 'last_touch_att'

Then select utm_source, utm_campaign, and count the number of first touch attributes. Then group by utm_campaign and display the number of last touches per campaign in a descending order.

Source	Campaign	Total Count
email	weekly-newsletter	477
facebook	retargeting-ad	443
email	retargeting-campaign	245
nytimes	getting-to-know-cool-tshirts	232
buzzfeed	ten-crazy-cool-tshirts-facts	190
medium	interview-with-cool-tshirts-founder	184
google	paid-search	178
google	cool-tshirts-search	60

```
/*  
Query to count last touches per campaign and source  
*/
```

```
WITH last_touch AS (  
    SELECT user_id,  
           MAX(timestamp) as last_touch_at  
    FROM page_visits  
    GROUP BY user_id),  
lt_attr AS (  
    SELECT lt.user_id,  
           lt.last_touch_at,  
           pv.utm_source,  
           pv.utm_campaign  
    FROM last_touch lt  
    JOIN page_visits pv  
      ON lt.user_id = pv.user_id  
      AND lt.last_touch_at = pv.timestamp)  
SELECT lt_attr.utm_source AS 'Source',  
       lt_attr.utm_campaign AS 'Campaign',  
       COUNT(*) AS 'Total Count'  
FROM lt_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

2.3 How many visitors make a purchase?

In order to determine how many visitors made a purchase, I ran a simple query from the page_visits table to count the number of page_name that matched '4 - purchase.'

- I was able to determine through this query that there have been a total of 361 purchases made by visitors.

Page	Total Count
4 - Purchase	361

```
/*  
Query to count how many visitors made purchases  
*/  
  
SELECT page_name AS 'Page', COUNT(*) AS 'Total Count'  
FROM page_visits  
WHERE page_name = '4 - purchase'  
GROUP BY 1;
```

2.4 How many last touches on the purchase page is each campaign responsible for?

To determine how many last touches on the purchase page each campaign is responsible for, I modified the previous last touch query to include a 'WHERE' clause that matched the purchase page.

Source	Campaign	Total Count
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-campaign	54
google	paid-search	52
buzzfeed	ten-crazy-cool-tshirts-facts	9
nytimes	getting-to-know-cool-tshirts	9
medium	interview-with-cool-tshirts-founder	7
google	cool-tshirts-search	2

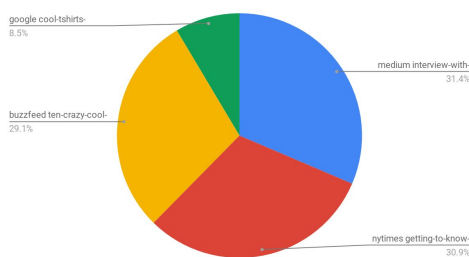
```
/*  
Query to determine how many last touches on the  
purchase page are each campaign responsible for  
*/
```

```
WITH last_touch AS (  
    SELECT user_id,  
           MAX(timestamp) as last_touch_at  
    FROM page_visits  
    WHERE page_name = '4 - purchase'  
    GROUP BY user_id),  
lt_attr AS (  
    SELECT lt.user_id,  
           lt.last_touch_at,  
           pv.utm_source,  
           pv.utm_campaign  
    FROM last_touch lt  
    JOIN page_visits pv  
    ON lt.user_id = pv.user_id  
    AND lt.last_touch_at = pv.timestamp)  
SELECT lt_attr.utm_source AS 'Source',  
       lt_attr.utm_campaign AS 'Campaign',  
       COUNT(*) AS 'Total Count'  
FROM lt_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

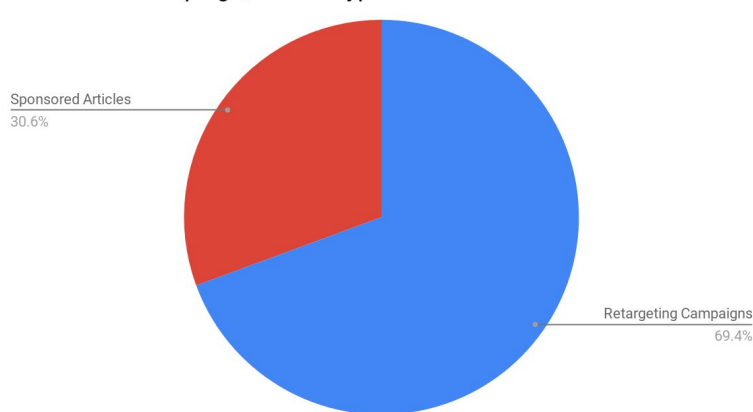
2.5 What is the typical user journey?

The data we have collected shows that sources such as medium, nytimes, and buzzfeed are good for driving initial first touches as Sponsored Articles on their websites.

Number of First Touches



Last Touch Campaign/Source Types



However, what appears to 69% of last touches are Retargeting Campaigns that indicated as **bolded** in the table.

Source	Campaign	Total Count
medium	interview-with-cool-tshirts-founder	622
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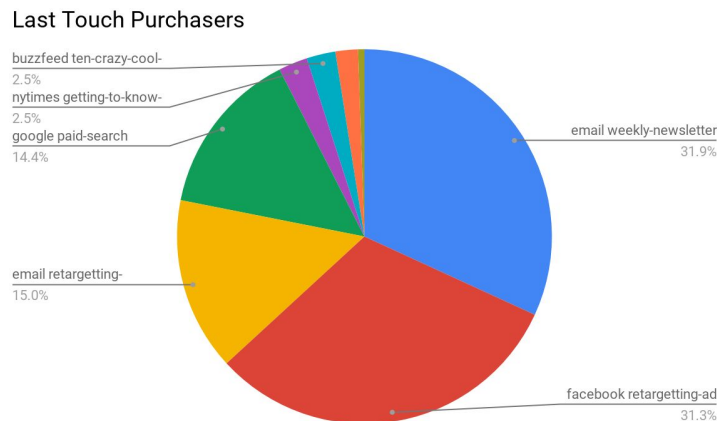
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google	paid-search	178
google	cool-tshirts-search	60

2.6 What is the typical user journey? Cont.

From these results we can see that Retargeting Campaigns are far more effective at driving users back to the website in order to purchase.

Retargeting Campaigns with Facebook and Google account for 92% of purchase conversions.

However, it is important to note that first touch engagement for Sponsored Articles is responsible for initial visits.



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email	weekly-newsletter	115
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email	retargeting-campaign	54
google	paid-search	52
buzzfeed	ten-crazy-cool-tshirts-f acts	9
nytimes	getting-to-know-cool-ts hirts	9
medium	interview-with-cool-tshi rts-founder	7
google	cool-tshirts-search	2

3. Optimize the campaign budget

3.1 CoolTShirts can re-invest in 5 campaigns. Which should they pick and why?

If CoolTShirts can only re-invest in 5 campaigns, I suggest that they invest in the 4 best performing campaigns responsible for the most last touch purchase conversions. Listed Here:

- Email weekly-newsletter
- Facebook retargeting-ad
- Email retargeting-ad
- Google paid-search

The last campaign they should re-invest in is the best performing campaign that effectively drives the highest amount of first touch engagement. Listed Here:

- Medium interview-with-cool-tshirts-founder

I believe that this would be an effective strategy because it allows for CoolTShirts (CTS) to focus on leveraging their most efficient campaign for driving initial engagement and couple it with their best performing last touch campaigns to drive visitors back to the website to purchase.