CoolTShirts

Learn SQL from Scratch

John Hoskinson

January 5, 2018

Table of Contents

① Get familiar with CoolTShirts

② What is the user journey?

③ Optimize the campaign budget

①   Get Familiar With CoolTShirts

Get Familiar With CoolTShirts

- CoolTShirts is currently tracking **8** marketing campaigns from **6** separate sources. Half of the sources are ads on news sites that link to stories or features (New York Times, Medium, Buzzfeed). Each of these sources has a single campaign associated with it.

- The other 3 sources are:

  - Facebook - 1 paid retargeting ad campaign.

  - Google – 1 paid search campaign plus 1 organic search campaign.

  - Email – CoolTShirts' Weekly newsletter plus a separate retargeting email.

```
SELECT DISTINCT utm_campaign AS 'Campaign',
  utm_source AS 'Source'
FROM page_visits;
```

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

Get Familiar With CoolTShirts (cont.)

- Each campaign has a designated landing page (represented as '1 – landing_page' in our data) upon which the individual is sent after clicking on the call to action link (text, button, image, etc). The exceptions to this would be the retargeting campaigns where the action is more likely going to be to the shopping cart or checkout page (i.e. abandoned cart).

- From there, the visitor hopefully adds an item or two (or more!) to his or her cart. From the shopping cart page (2 – shopping_cart), the next step in the process is the checkout page (3 – checkout). And, finally, we track those that complete checkout and end up on the purchase complete page (4 – purchase).

```
SELECT DISTINCT page_name AS 'Page Name'
FROM page_visits;
```

Page Name	Description
1 – landing_page	Customer has clicked on call to action in campaign
2 – shopping_cart	Customer has added 1 or more products to his/her cart
3 - checkout	Customer has begun the checkout process
4 - purchase	Success! The customer has completed his/her transaction. $$$

② What Is The User Journey?

2.1 First Touches

CoolTShirts

Using the SQL query to the right, we are able to see that only 4 of CoolTShirts active campaigns resulted in a 'first touch'.

- The 3 traditional media sources (Medium, NY Times and Buzzfeed) account for the majority of these first touches. (91.5% of the 1,979 visitors)
- The organic Google search campaign accounts for the rest of these first touches.

Source	Campaign	First Touches
Medium	interview-with-cooltshirts-founder	622
NY Times	getting-to-know-cool-tshirts	612
Buzzfeed	ten-crazy-cool-tshirts-facts	576
Google	cool-tshirts-search	169

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

2.2 Last Touches

CoolTShirts

- Using a slightly modified SQL query (changing 'MIN' in the above query to 'MAX') we are able to see how many last touches are associated with each campaign.

- 3 of the 4 campaigns that didn't show up in the first touches query are the top 3 in our last touches results. Our various retargeting campaigns start to show their effectiveness here.

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

Source	Campaign	Last Touches
email	weekly-newsletter	447
facebook	retargetting-ad	443
email	retargetting-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

2.3 How many visitors make a purchase?

CoolTShirts

Using the SQL query to the right, we are able to see that 361 of the unique visitors to CoolTShirts made a purchase.

- This gives CoolTShirts an overall conversion rate of 18% (361 purchases / 1,979 unique visitors)

```
SELECT COUNT(DISTINCT user_id) AS 'Users Who
Converted'
FROM page_visits
WHERE page_name = '4 - purchase';
```

Users Who Converted
361

2.4 Conversions per campaign

CoolTShirts

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

- By modifying the last touches SQL query to only count last touches that were on the purchase page (4 – purchase), we can see how many conversions each campaign was responsible for.

- Once again, we see that the retargeting campaigns and other 'reminder' campaigns (i.e. weekly email newsletter to existing subscribers, Google paid search) are responsible for a large share or the conversions.

```
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)
SELECT pv.utm_source AS 'Source',
    pv.utm_campaign AS 'Campaign',
    COUNT(pv.utm_campaign) AS
'Conversions'
FROM last_touch lt
JOIN page_visits pv
  ON lt.user_id = pv.user_id
  AND lt.last_touch_at = pv.timestamp
GROUP BY 2
ORDER BY 3 DESC;
```

Source	Campaign	Conversions
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

2.5 Typical User Journey

- As we saw in our first touches query, CoolTShirts typical user's journey starts by exposure to one of our traditional media story/feature ad campaigns. They are shaded blue on this and subsequent charts to show how their influence changes in each step.

- We see here that the 3 story/feature campaigns account for a whopping 91% of CoolTShirts' new visitors.
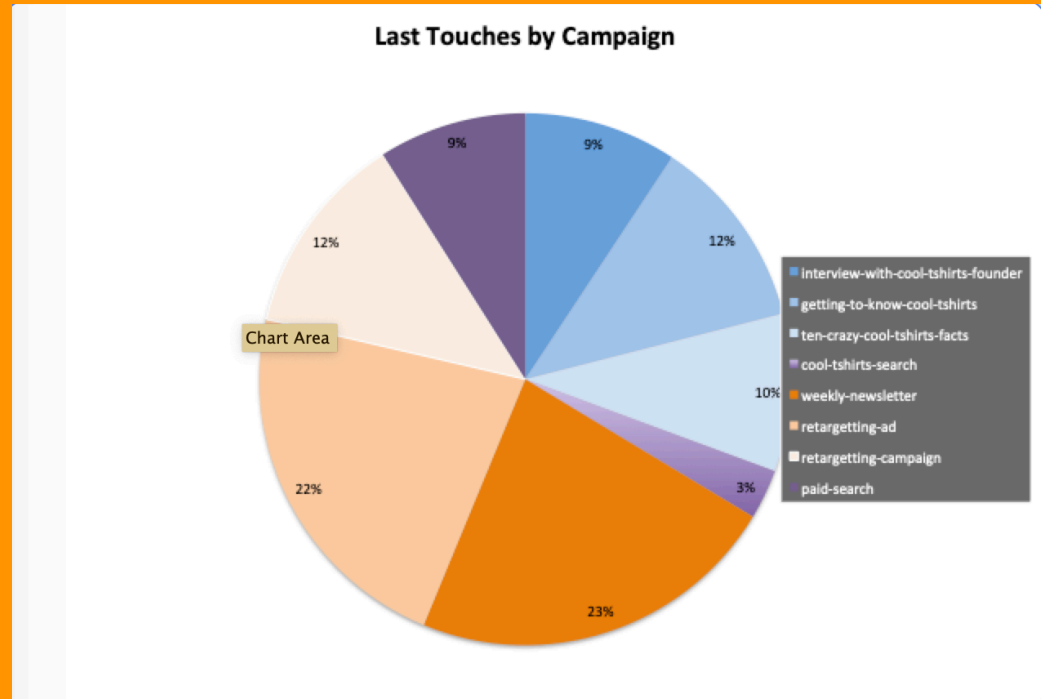
First Touches by Campaign

9%

31%

29%

31%

- interview-with-cool-tshirts-founder
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- cool-tshirts-search

CoolTShirts

2.5 Typical User Journey (cont.)
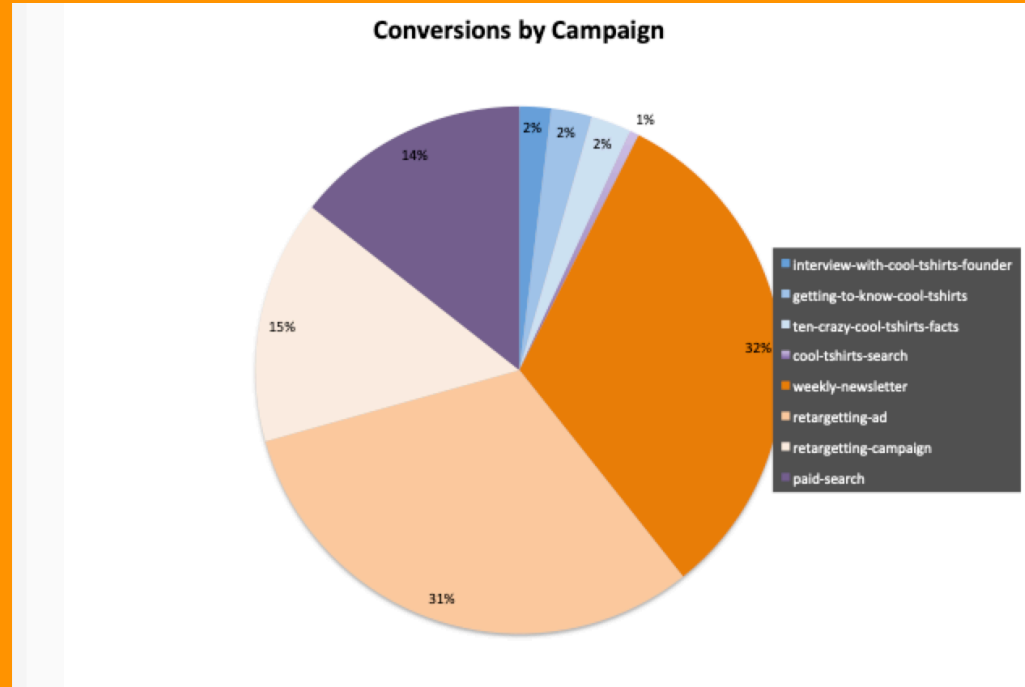

CoolTShirts
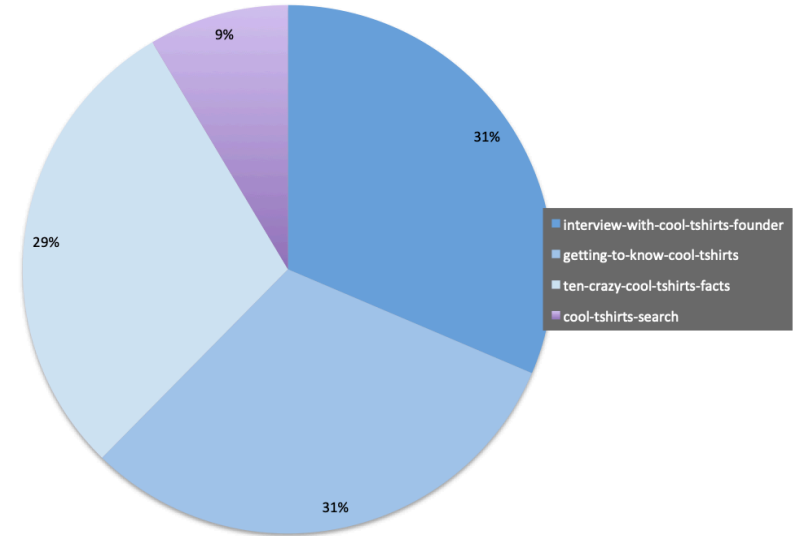
- In the next step of our typical user's journey, we now see the retargeting/ reminder campaigns (shaded in orange) making a big showing.

- The retargeting/reminder campaigns account for 57% of the last touches while the media story/feature campaigns account for only 31%. Google paid and organic search make up the remainder (purple).

Last Touches by Campaign

- 9%
- 9%
- 12%
- 12%
- 10%
- 3%
- 23%
- 22%

Legend:
- interview-with-cool-tshirts-founder
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- cool-tshirts-search
- weekly-newsletter
- retargetting-ad
- retargetting-campaign
- paid-search

Chart Area

2.5 Typical User Journey (cont.)

CoolTShirts

- In the final step, our 'typical user' has left without making a purchase. 82% of them have not yet completed a purchase. We have converted 18% of them which is a very respectable number.

- As we can see, the story/feature campaigns (in blue) have shrunk considerably in our pie chart - accounting for only 6% of the conversions.

- Our typical *converting* user has come to us from the story/feature campaigns but now is converting thanks to assists from our retargeting campaigns (orange).

Conversions by Campaign

2% 2% 2% 1%

14%

15%

32%

31%

- interview-with-cool-tshirts-founder
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- cool-tshirts-search
- weekly-newsletter
- retargetting-ad
- retargetting-campaign
- paid-search

③　Optimize the Campaign Budget

3.1 Optimizing the Campaign Budget

CoolTShirts

Of the 8 campaigns, 2 are essentially without cost – the email retargeting campaign and the cool-tshirts-search. That leaves us with 6 campaigns that require an investment. To narrow this down to only 5, I'd suggest we stop the Google paid search. That leaves us with the 5 highlighted below. The blue, story/feature campaigns have proven to be excellent at bringing new visitors to the website. While the orange highlighted campaigns are the most effective of our retargeting campaigns.

Campaign [source]	% of First Touches	% of Last Touches	% of Conversions
interview-with-cool-tshirts-founder [Medium]	31%	9%	2%
getting-to-know-cool-tshirts [NY Times]	31%	12%	2%
ten-crazy-cool-tshirts-facts [Buzzfeed]	29%	10%	2%
cool-tshirts-search [Google]	9%	3%	1%
weekly-newsletter [Email]	0%	23%	32%
retargetting-ad [Facebook]	0%	22%	31%
retargetting-campaign [Email]	0%	12%	15%
paid-search [Google]	0%	9%	14%