

CoolTShirts.com: First- and Last-Touch Attribution

Kayce Severin
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Learn SQL from Scratch

Table of Contents

1. Get familiar with CoolTShirts Marketing.
2. What is the User Journey?
3. Optimize the Campaign Budget.
4. Appendix
 - Slide Zoom included for query reference where applicable.

CAMPAIGN BACKGROUND

1. Get familiar with CoolTShirts Marketing.

1. Get familiar with CoolTShirts

Background

1.a. How many campaigns and sources does CoolTShirts use and how are they related?

- Campaigns identify the specific ad or e-blast used to generate customer activity
- Sources identify which site sent the traffic to the company site

Campaigns	Sources
8	6

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

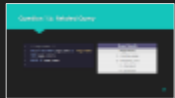


1. Get familiar with CoolTShirts cont.

CoolTShirts (CTS) has collected data on their customer website activity using UTM parameters (like Campaign and Source). Each campaign has a specific URL that is embedded with these parameters to capture when and how customers found and subsequently used their website. This data is broken down to the individual website pages shown.

1.b. What pages are on their website?

Website Page Names
1 – landing_page
2 – shopping_cart
3 – checkout
4 – purchase



USER JOURNEY

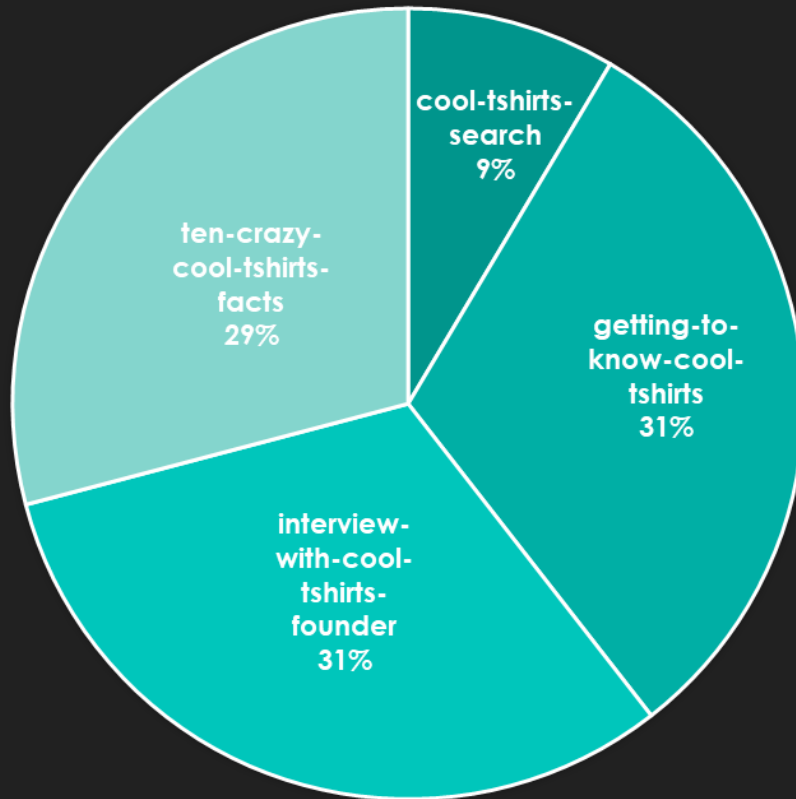
2. What is the User Journey?

2. What is the User Journey? First Touch

First Touch is defined as the first time the user was exposed to CoolTShirts.com.

2.a. How many first touches is each campaign responsible for?

Campaign	First Touches
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169

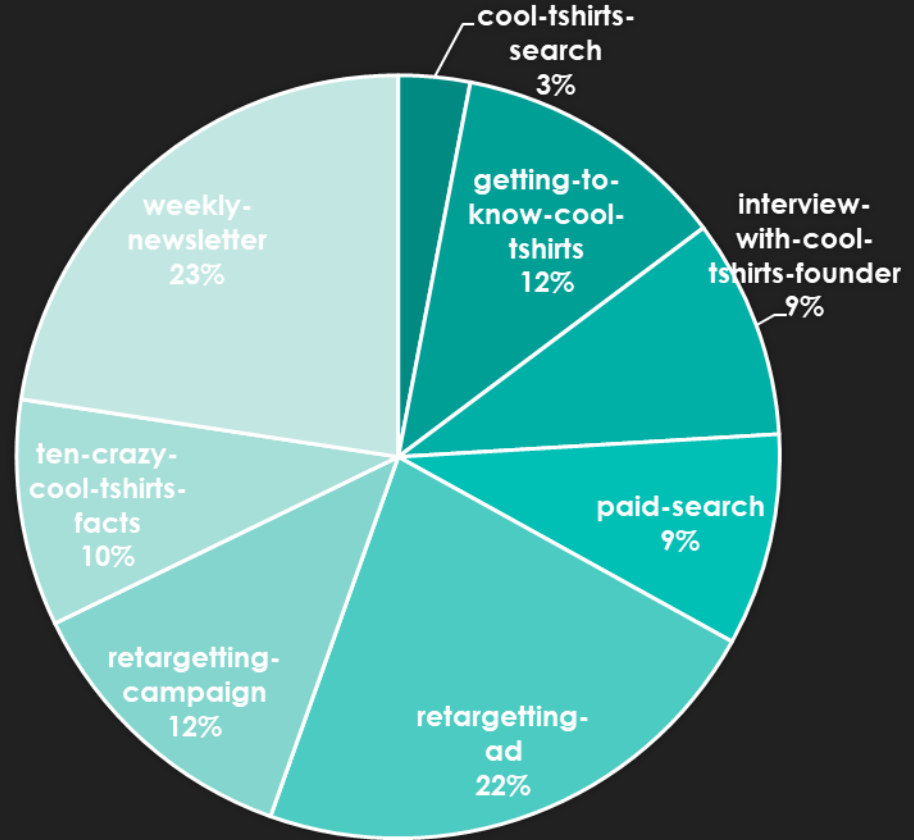


2. What is the User Journey? Last Touch

Last Touch is defined as the last exposure to CoolTShirts.com.

2.b. How many last touches is each campaign responsible for?

Campaign	Last Touches
weekly-newsletter	447
retargeting-ad	443
retargeting-campaign	245
getting-to-know-cool-tshirts	232
ten-crazy-cool-tshirts-facts	190
interview-with-cool-tshirts-founder	184
paid-search	178
cool-tshirts-search	60

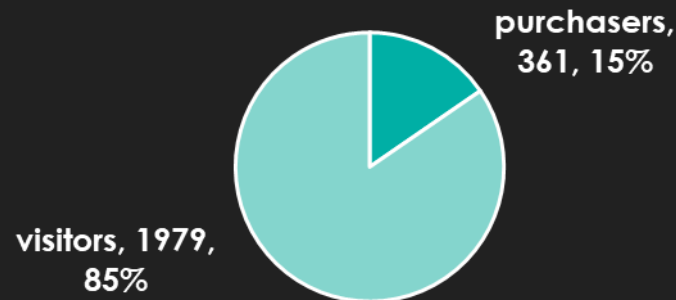


2. What is the User Journey?

Last Touch Resulting in Purchase

2.c. How many visitors make a purchase?

2.d. How many last touches *on the purchase page* is each campaign responsible for?



Campaign	Last Touches with Purchase
cool-tshirts-search	2
getting-to-know-cool-tshirts	9
interview-with-cool-tshirts-founder	7
paid-search	52
retargeting-ad	112
retargeting-campaign	53
ten-crazy-cool-tshirts-facts	9
weekly-newsletter	114
TOTAL	358

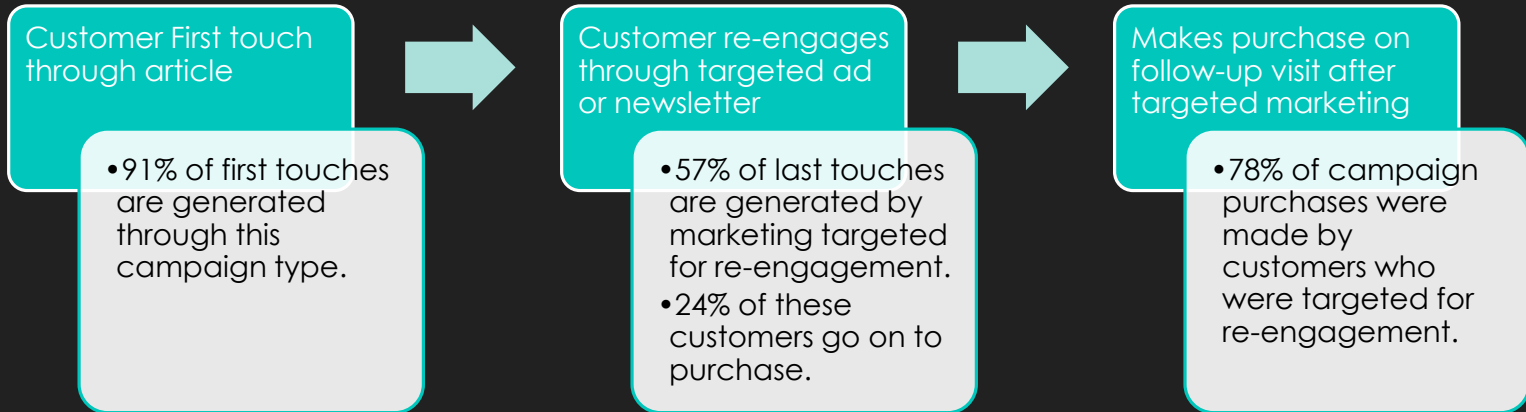
2. What is the User Journey?

The below chart is a consolidation of the number of “touches” per campaign and source.

Campaigns targeted at re-engaging customers are **bolded** in the chart below. These only appear in the Last Touch columns.

Campaign	Source	First Touches	Last Touches	Last Touches with Purchase	% of Total Purchases
cool-tshirts-search	google	169	60	2	0.6%
getting-to-know-cool-tshirts	nytimes	612	232	9	2.5%
interview-with-cool-tshirts-founder	medium	622	184	7	2.0%
paid-search	google		178	52	14.5%
retargetting-ad	facebook		443	112	31.3%
retargetting-campaign	email		245	53	14.8%
ten-crazy-cool-tshirts-facts	buzzfeed	576	190	9	2.5%
weekly-newsletter	email		447	114	31.8%
TOTAL		1979	1979	358	

2.d. What is the Typical User Journey?



BUDGET RECOMMENDATIONS

3. Optimize the Campaign Budget

3. Optimize the Campaign Budget.

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

Reinvest:

- Getting-to-know-cool-tshirts
- Interview-with-cool-tshirts-founder
- Ten-crazy-cool-tshirts-facts
- Retargeting-ad
- Weekly-newsletter

End:

- Cool-tshirts-search
- Paid-search
- Retargetting-campaign

3. Optimize the Campaign Budget.

Why to Reinvest?

- Getting-to-know-cool-tshirts
 - Interview-with-cool-tshirts-founder
 - Ten-crazy-cool-tshirts-facts
 - Retargeting-ad
 - Weekly-newsletter
- The article campaign type was clearly a successful engagement tool. Since most purchases were proceeded by retargeting, maintaining high lead-generation for targeted marketing will be key to increasing sales. All article campaigns are recommended for reinvestment.
 - Since the Retargeting-ad conversion to purchase was so high (25.3%), reinvesting in this campaign, in conjunction with the article campaigns, should result in an increase in sales.
 - The Weekly-newsletter was the most successful re-engagement campaign with an equally high (25.5%) conversion to purchase and resulting in the highest purchase percentage (31.8%).



Campaign	Impressions	Clicks	Conversions	Cost	CPA
Getting-to-know-cool-tshirts	1000	50	10	\$100	\$10
Interview-with-cool-tshirts-founder	1000	50	10	\$100	\$10
Ten-crazy-cool-tshirts-facts	1000	50	10	\$100	\$10
Retargeting-ad	1000	50	10	\$100	\$10
Weekly-newsletter	1000	50	10	\$100	\$10

3. Optimize the Campaign Budget.

Why to End?

- Cool-tshirts-search
- Paid-search
- Retargeting-campaign

- The search campaigns both generated traffic at First and Last touch; however, Cool-tshirts-search was not a leader in any category.
- While Paid-search specifically resulted in 14.5% of purchases and had the highest conversion % to purchase, it was low for distinct customer generation. The likelihood of this category increasing is dependent on existing interest. Funds invested in generating interest are likely to increase CTS searches as a result.
- The email Retargeting-campaign generated less return users and resulting purchases than the other re-engagement campaigns. As the newsletter is already dependent on email with higher performance, it is recommended that this campaign ends. This also helps remove brand association with "spam" email.



Category	Search	Paid	Retargeting
Cool-tshirts-search	14.5%	14.5%	14.5%
Paid-search	14.5%	14.5%	14.5%
Retargeting-campaign	14.5%	14.5%	14.5%

Take Action!

Recommendations for Future Consideration

- As the Retargeting Facebook ad was very successful in purchase conversion and this source is already viable for article visibility, CTS should consider posting articles through Facebook for a potential increase in purchase on First Touch.
- Further analysis of site usage funnel is recommended to determine highest user drop-off points and considerations for potential investment in web design.

Appendix

1. Table Schema: page_visits

2. All Related Queries:

<https://gist.github.com/31abb930b57eea6edae19f6bd93b8171>

a. Question 1. Related Queries

b. Question 2. Related Queries

c. Question 3. Related Queries

Table Schema: page_visits

A table describing each time a user visits the CoolTshirts website

user_id	A unique identifier for each visitor to a page
timestamp	The time at which the visitor came to the page
page_name	The title of the section of the page that was visited
utm_source	Identifies which site sent the traffic (i.e. google, newsletter, or facebook_ad)
utm_medium	Identifies what type of link was used (i.e., cost-per-click or email)
utm_campaign	Identifies the specific ad or email blast (i.e., june-21-newsletter or memorial-day-sale)

Question 1.a. Related Query

```
1  /* # of Distinct Campaigns */
2  SELECT COUNT(DISTINCT utm_campaign) AS 'Campaign'
3  FROM page_visits;
4
5  /* # of Distinct Sources */
6  SELECT COUNT(DISTINCT utm_source) AS 'Source'
7  FROM page_visits;
8
9  /* Sources by Campaign */
10 SELECT utm_campaign AS 'Campaign',
11        utm_source AS 'Source'
12 FROM page_visits
13 GROUP BY utm_campaign;
```

Query Results	
Campaign	
8	
Source	
6	
Campaign	Source
cool-tshirts-search	google
getting-to-know-cool-tshirts	nytimes
interview-with-cool-tshirts-founder	medium
paid-search	google
retargeting-ad	facebook
retargeting-campaign	email
ten-crazy-cool-tshirts-facts	buzzfeed
weekly-newsletter	email

Question 1.b. Related Query

```
1  /* Page Names */
2  SELECT DISTINCT page_name as 'Page Name'
3  FROM page_visits
4  GROUP BY page_name;
5
```

Query Results
Page Name
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

Question 2.a. Related Query

```
20  /* Temp Table of First Touch by User ID used to determine
    First Touch by Campaign */
21  WITH ft AS (
22      SELECT user_id,
23             utm_campaign AS 'Campaign',
24             MIN(timestamp) AS 'First_touch'
25      FROM page_visits
26      GROUP BY user_id)
27  SELECT Campaign,
28         COUNT(First_touch) AS '# of First Touches'
29  FROM ft
30  JOIN page_visits pv
31      ON ft.user_id = pv.user_id
32      AND ft.First_touch = pv.timestamp
33  GROUP BY Campaign;
```

Query Results	
Campaign	# of First Touches
cool-tshirts-search	169
getting-to-know-cool-tshirts	612
interview-with-cool-tshirts-founder	622
ten-crazy-cool-tshirts-facts	576

Question 2.b. Related Query

```
35  /* Temp Table of Last Touch by User ID Used to determine
    Last Touch by Campaign */
36  WITH lt AS (
37      SELECT user_id,
38             utm_campaign AS 'Campaign',
39             MAX(timestamp) AS 'Last_touch'
40      FROM page_visits
41      GROUP BY user_id)
42  SELECT Campaign,
43         COUNT(Last_touch) AS '# of Last Touches'
44  FROM lt
45  JOIN page_visits pv
46      ON lt.user_id = pv.user_id
47      AND lt.Last_touch = pv.timestamp
48  GROUP BY Campaign;
```

Query Results	
Campaign	# of Last Touches
cool-tshirts-search	60
getting-to-know-cool-tshirts	232
interview-with-cool-tshirts-founder	184
paid-search	178
retargeting-ad	443
retargeting-campaign	245
ten-crazy-cool-tshirts-facts	190
weekly-newsletter	447

Question 2.c. Related Query

```
1  /* Number of Site Visitors */
2  SELECT
3      COUNT(DISTINCT user_id) AS '# of Visitors'
4  FROM page_visits;
```

Query Results

of Visitors
1979

```
1  /* Number of Site Visitors who Purchase */
2  SELECT
3      COUNT(DISTINCT user_id) AS '# of Purchasers'
4  FROM page_visits
5  WHERE page_name IS '4 - purchase';
```

Query Results

of Purchasers
361

Question 2.d. Related Query

```
1  /* Temp Table of Last Touch by User ID
2  Used To Determine Last Touch on Purchase
3  Page by Campaign */
4  WITH lt AS
5  (SELECT user_id,
6   utm_campaign AS 'Campaign',
7   max(timestamp) AS 'Last_touch'
8   FROM page_visits
9   GROUP BY user_id)
10 SELECT Campaign,
11        COUNT(Last_touch) AS '# of Last Touches'
12 FROM lt
13 JOIN page_visits AS 'pv'
14     ON lt.user_id = pv.user_id
15     AND lt.Last_touch = pv.timestamp
16 WHERE page_name IS '4 - purchase'
17 GROUP BY campaign;
```

Query Results	
Campaign	# of Last Touches
cool-tshirts-search	2
getting-to-know-cool-tshirts	9
interview-with-cool-tshirts-founder	7
paid-search	52
retargetting-ad	112
retargetting-campaign	53
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