

Marketing Attribution for CoolTShirts

Analyzing Data with SQL

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codecademy Pro guided project

Presentation Outline

1. Aims of the Project
2. The Data Set
3. Analysis and Results
4. Observations and Recommendations

Background

CoolTShirts is a fictional online apparel shop. After several recent marketing campaigns, the company wishes to know which five campaigns to re-invest in.

CoolTShirts would also like to develop more insight into the typical user journey from an initial visit to a final purchase.

Project Aims

This project aims to answer the following questions:

1. What is the typical user journey?
2. How many first and last touches is each marketing campaign responsible for?
3. Which five campaigns should CoolTShirts re-invest in?

The Data Set

Data for CoolTShirts were generated by Codecademy from January 1, 2018 through February 4, 2018. Timestamps for fictional users' visits to each page (landing page, shopping cart, checkout, purchase) of the CoolTShirts website were generated, in addition to user IDs. Each visit to a page was attributed to one of eight ad campaigns "run" by the fictional company.

The table to the right (obtained via SQL search) lists the ad campaigns "run" by CoolTShirts, as well the source used for each campaign.

| 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 |

First Touch Attribution

In this presentation, “first touch” is defined to be the first visit of a user to the CoolTShirts website. To see which ad campaigns generated the most first touches, an SQL search was performed to count how many instances of a unique user’s first access (based on timestamp) to a page on CoolTShirts could be linked to that campaign and its source. The results are included in the table to the right.

| Source | Campaign | FT 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 |

Last Touch Attribution

In this presentation, “last touch” is defined to be the final logged visit of a user to the CoolTShirts website. To see which ad campaigns generated the most last touches, an SQL search was performed to count how many instances of a unique user’s last access (based on timestamp) to a page on CoolTShirts could be linked to that campaign and its source. The results are included in the table to the right.

| Source | Campaign | LT Count |
|----------|-------------------------------------|----------|
| email | weekly-newsletter | 447 |
| 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 |

Last Touch Resulting in Purchase

Not all last touches as defined in this presentation resulted in a sale—a prime example of this is a user who clicked on the landing page and never returned¹. To determine which last touches actually resulted in a sale, an SQL search was performed to count how many user's last touches were on the purchase page, and which ad campaign those last touches were attributed to.

Of the 1,979 fictional users who were generated for this data set, 361 made a purchase from CoolTShirts.

| Source | Campaign | LT Sale count |
|----------|-------------------------------------|---------------|
| email | weekly-newsletter | 115 |
| facebook | retargeting-ad | 113 |
| email | retargeting-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 |

1: An SQL query reveals that this was the case for 98 users.

Overall Observations

- The Medium ad campaign “interview-with-cool-tshirts-founder” and the New York Times ad campaign “getting-to-know-cool-tshirts” resulted in the most first touches.
- However, the weekly newsletter email and Facebook retargeting ad campaigns resulted in the most final touches that ended as purchases. These also resulted in the most overall last touches.

Overall Observations

- Based on the relatively small number of ad campaigns which result in first touches, and the larger number of ad campaigns that result in last touch purchases, it seems likely that the typical user first encounters CoolTShirts through an online article, does not make an initial purchase, but returns to the site to make a purchase once encountering a re-targeting ad campaign.

Recommendations

CoolTShirts can only re-invest in 5 ad campaigns. The goal should be to maximize initial exposure to CoolTShirts, and follow up with an effective re-targeting campaign.

Recommendations

The following three campaigns currently result in 91% of CoolTShirts' first touches and should be renewed:

1. The Medium "interview-with-cool-tshirts-founder" campaign as an initial exposure ad.
2. The New York Times "getting-to-know-cool-tshirts" campaign as an initial exposure ad.
3. The BuzzFeed "ten-crazy-cool-tshirts-facts" campaign as an initial exposure ad.

Recommendations

The following two re-targeting campaigns result in 45% of all last touches, and 63% of last touches resulting in purchase, and thus should be renewed:

4. The email weekly newsletter as a re-targeting campaign.
5. The Facebook re-targeting ad as a re-targeting campaign.