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CoolTShirts

First- and Last-Touch Attribution

Learn SQL from Scratch
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1. Get familiar with CoolTShirts

1.1 Campaigns and Sources

- CoolTShirts has:

  - 6 distinct sources

    - for -

  - 8 distinct campaigns.

- Campaigns for each source

  - 2 campaigns each

    - Email; Google

  - 1 campaign each

    - Buzzfeed; Facebook; Medium; NYTimes

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

1.2 CoolTShirts Website Pages

- CoolTShirts website has four distinct page names.

- The page names correspond to steps in the process of purchasing an item from the Company's website.

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

2. What is the user journey?

2.3 First-touch by Source and Campaign

- These campaigns seek to attract/acquire new customers.
- Four source/campaign combinations produced a total of 1,979 first-touches (unique visitors).
- The most first-touches were produced by the **'interview-with-cool-tshirts-founder'** campaign on **Medium**.
- The fewest first-touches were produced by the **'cool-tshirts-search' campaign'** on **Google**.

Source	Campaign	First Touch 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

```
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 'First Touch Count'
FROM ft_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

2.4 Last-touch by Source and Campaign

- Eight source/campaign combinations served as last-touches for the 1,979 unique visitors
- The most last-touches came as a result of the **'weekly-newsletter'** campaign by **E-mail**.
- The fewest last-touches came as a result of the **'cool-tshirts-search'** campaign on **Google**.
- As expected, the majority of last-touches were as a result of the newsletter and retargeting campaigns.

Source	Campaign	Last Touch Count
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

```
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 'Last Touch Count'
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

2.5 Users visiting Purchase page

- Of 1,979 users that visit the site, 361 users visit the Purchase page.

- This is an 18.24% conversion rate.

Users visiting Purchase page
361

2.6 Last-touch – Purchase page

- Eight source/campaign combinations served as last-touches for the 361 users that visited the Purchase page.
- Most of these were a result of the **'weekly-newsletter'** campaign by **E-mail** (31.86%).
- The fewest of these were a result of the **'cool-tshirts-search'** campaign on **Google** (0.55%).
- As expected, the majority of last-touches were as a result of the newsletter and retargeting campaigns.

Source	Campaign	Last Touch 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

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

3. Optimize the campaign budget
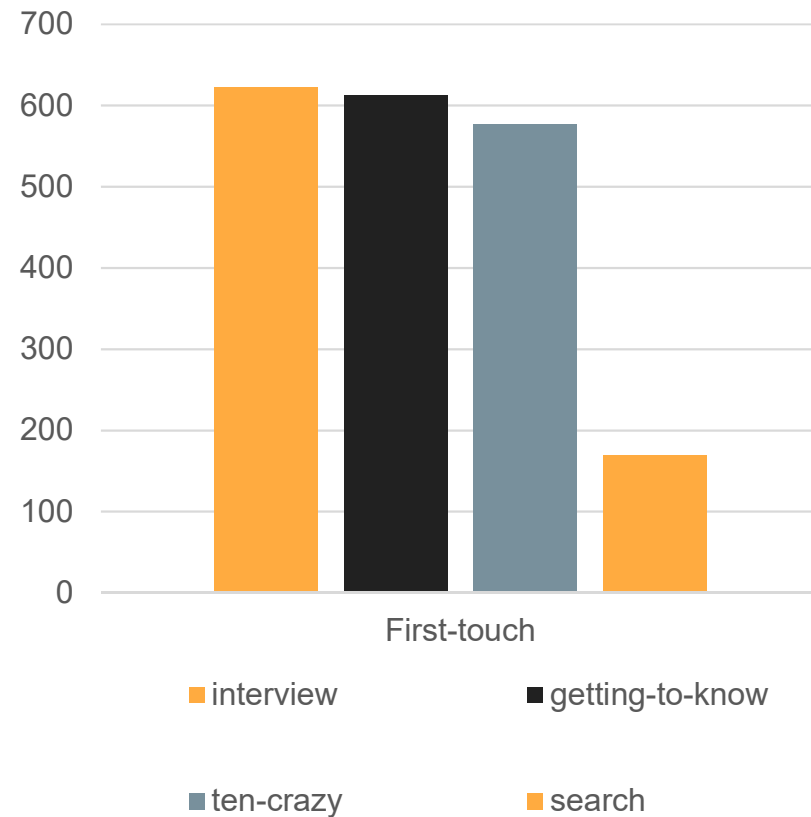
3. Campaign Reinvestments

- Effectively marketing CoolTShirts requires a combination of:

  - Campaigns that attract visitors to the website (first-touch) – such as sponsored content that pique viewers' interests

    - and -

  - Campaigns that convert visitors into sales (last-touch) – such as retargeting campaigns that keep visitors interested.

Attract Visitors (First-touch)	→	Retarget Visitors (Last-touch nonpurchase)	→	Visitor makes purchase (Last-touch purchase)

3. Campaign Reinvestments

- Three campaigns have a demonstrated history of attracting visitors to the CoolTShirts website.

- Therefore, these recommended reinvestments are:

    1. interview-with-cool-tshirts-founder (Medium),

    2. getting-to-know-cool-tshirts (NYTimes), and

    3. ten-crazy-cool-tshirts-facts (Buzzfeed).

- A search campaign (Google) could be beneficial when interest in these campaigns wanes unless a new, similar sponsored content campaign is developed.

First-touch Campaigns

Legend:
- interview
- getting-to-know
- ten-crazy
- search

3. Campaign Reinvestments

- Two campaigns have been most effective at converting visitors to sales.

- Therefore, these recommended reinvestments are:

    1. weekly-newsletter (email), and

    2. retargetting-ad (Facebook)

- Each of these campaigns accounted for at least 80% more last-touches than any other campaign.

- Each of these campaigns accounted for at least 109% more last-touches on the purchase page.

Last-touch Campaigns

Legend: ■ newsletter ■ retarget-ad ■ retarget-camp ■ paid-search
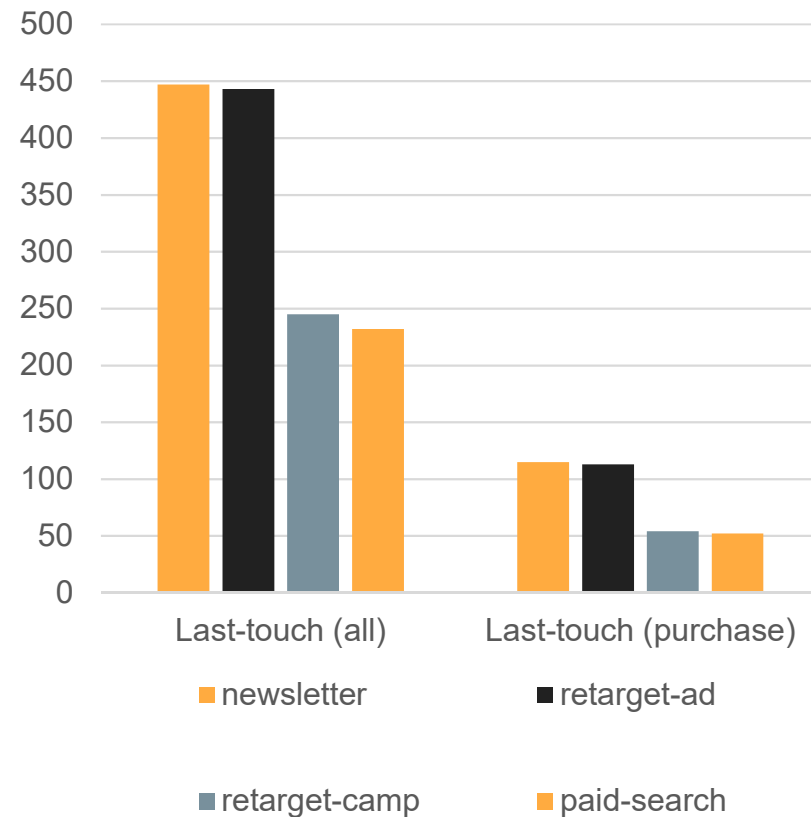
Summary:

- Of 8 original campaigns, the data shows which have been the most effective.

- Based on the data, these 5 campaigns are suggested for reinvestment:

  1. interview-with-cool-tshirts-founder (Medium),

  2. getting-to-know-cool-tshirts (NYTimes),

  3. ten-crazy-cool-tshirts-facts (Buzzfeed),

  4. weekly-newsletter (email), and

  5. retargetting-ad (Facebook).