



# ASSIGNMENT 4: ST. JUDE

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# EXECUTIVE SUMMARY

This semester, we have been analyzing all of the social media content for St. Jude in order to try and provide them with recommendations to boost engagement and ultimately garner mass brand benefit. For this section of our project, we focused on a topic query. This is different than the previous work we have done, as before this, we have only dealt with queries that have directly had the words "St. Jude" or other company identifiers in it. However, for this leg of the project, we wrote a new query, which has only to do with a certain topic that our brand deals with. Because St. Jude is a research hospital primarily dealing with childhood cancer, we decided to use the topic **Childhood Cancer Research**. We believed that this topic would give us a good insight into the topics that those who interact with St. Jude are speaking about outside of the scope of the brand.

# RECOMMENDATIONS

## 1. FOCUS MORE ON BENEFITS

St. Jude does not charge families of children who receive treatment in their hospitals. However, the main negative spikes we saw focused on the price of everything else but the treatment, such as hotels and travel. Because of this, we believe that St. Jude should focus more on the benefits that they give to families, and maybe even add some new benefits, such as deals with hotels near their hospitals for families or discounted travel for families travelling to their facilities.

## 2. TRY AND GENERATE MORE POSITIVE MENTIONS

Out of the entire topic dataset, only 9% of the mentions were classified as positive sentiment, vs. 18% negative and 73% neutral. Because of this, we believe St. Jude should try and increase ways to get positive mentions by launching social media campaigns focused on positivity that include user interaction. Something like a "moments of joy" or "share your sunshine" that will be classified as positive mentions and also be replying to the St. Jude twitter account

## 3. MAKE FUNDRAISING EFFORTS MORE DISTINCT

The theme "Raise" made up 61.17% of all of the data in the topic dataset. It is the most talked about theme under our topic, and because of this we believe that St. Jude should try and insert themselves into this theme, since they are not very present in it at the moment. They focus so much on fundraising, but need to make their efforts and tweets more visible and distinct in order to be present in this theme that is so popular within the topic.

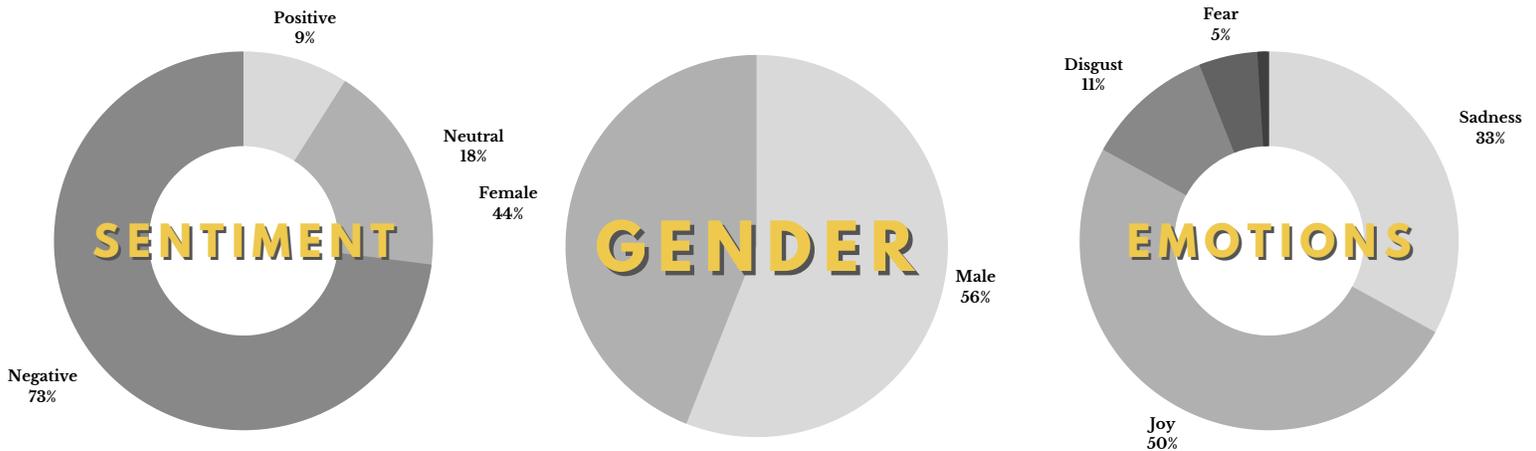
# TOPIC DATASET

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# TOPIC EXPLANATION

Our topic query focused on the topic **Childhood Cancer Research**. This is what St. Jude specializes in, so we wanted to see how people were talking about the topic without talking specifically about St. Jude. We split the topic up into three sections [Child, Cancer, and Research] and made mini queries for each of those sections. We then put those together to form our final topic query which is in our appendix (p. 16). The query, when plugged into brandwatch, garnered 70,391 total mentions with 45,256 unique authors. The top three "Trending Topics" were "cancer care," "Jude Children," and "side effects." The basic demographic information is listed below in the next page along with infographics that denote the difference in demographics and conversation within the topic dataset. That is followed by sentiment analysis, an annotated spike analysis, and finally the top items for our query.

# WHOLE DATA ANALYSIS

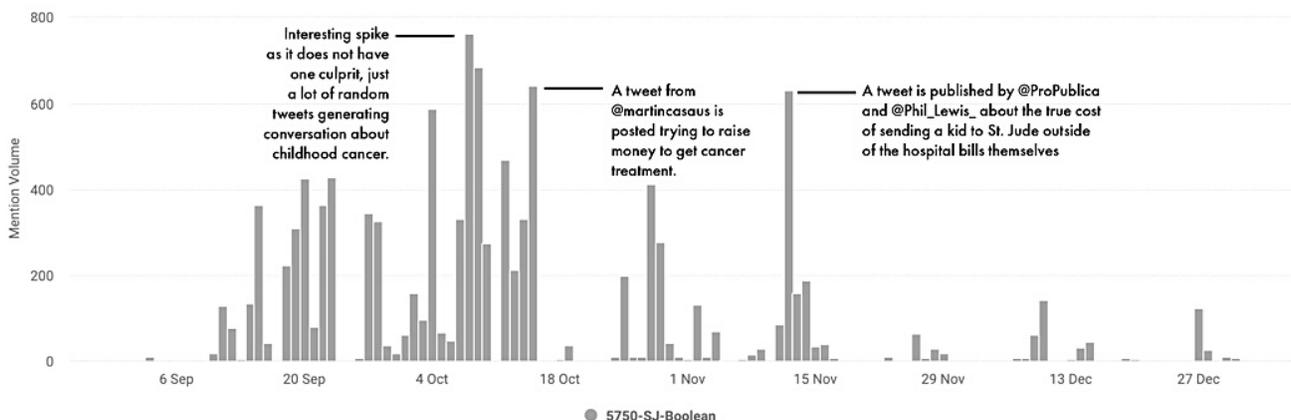


## SENTIMENT ANALYSIS

The positive conversations related to this theme are about big donations to St. Jude, specifically from Elon Musk and Ki Aile USA in September. These Twitter posts about donations typically mention donating money to help children fight against cancer and find cures. Other positive sentiment tweets include fundraising activities and attempts to raise money for the hospital.

There was a large spike of negative sentiment in September due to a Twitter post by @StrandJunker claiming that Eric Trump stole money from St. Jude by telling donors all money would be donated, but instead took some for Trump's businesses. Other tweets with negative sentiment are about money issues and the expensive bills families with children in the hospital are having to pay.

## TOPIC SPIKE ANALYSIS W/ ANNOTATIONS



# TOP ITEMS

| TOP RETWEETED | TWEET   | # OF RETWEETS |
|---------------|---|---------------|
| @Strandjunker | "Eric Trump Foundation funneling with cancer research..." | 2,131         |
| @MarinaMedvin | "Johns Hopkins research team analyzed ..."                | 1,724         |
| @POTUS        | "White House was lit up for Childhood Cancer..."          | 1,377         |

| TOP HASHTAGS     | USES |
|------------------|------|
| #cancer          | 2031 |
| #childhoodcancer | 1897 |
| #research        | 771  |

| TOP USERS   | IMPACT | FOLLOWERS  |
|---|--------|------------|
|  @TheEllenShow | 98.8   | 77,897,198 |
|  @POTUS       | 98.7   | 14,112,698 |
|  @CNN         | 97.8   | 54,602,676 |

| TOP SHARED SITES  | VOLUME |
|-------------------|--------|
| www.gofundme.com  | 4198   |
| t.me              | 3366   |
| www.curetoken.net | 1980   |

| TOP URLS  | VOLUME |
|---|--------|
| <a href="https://www.gofundme.com/f/help-lannie-fight-cancer-and-save-a-life">https://www.gofundme.com/f/help-lannie-fight-cancer-and-save-a-life</a> | 4130   |
| <a href="https://t.me/CureTokenV2">https://t.me/CureTokenV2</a>   | 2346   |
| <a href="https://www.curetoken.net/">https://www.curetoken.net/</a>   | 1928   |

# THEME ANALYSIS

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# THEME ANALYSIS: RAISE

The theme raise has 43,587 mentions after training the custom classifiers, making up 61.17% of all posts in the dataset (71,251). Because this is unrelated to St. Jude, where Elon Musk and other males had a large influence, we see a greater percentage of women in the demographics and it is closer to 50/50. There are 44% female and 56% male. This is slightly because many of the tweets are about opinions relating to money and politics regarding cancer research, which men tend to be more invested in. @TheEllenShow has two mentions about raising support, but since she has 77,947,667 Twitter followers, she has an impact of 98.8 and an average reach of 709,332, making her a top tweeter within this topic. @POTUS (President Biden) is a top influencer within this topic with his tweet on September 24th about National Childhood Cancer Awareness Month and his goal to invest in critical research and care to end cancer. With the one mention, this post had an average reach of 1,648,291. This post by the president was a top mention and got 1,377 retweets and had an impact of 98.7. This tweet had a high spike of negative sentiment and sadness.

Most tweets under this theme had emotions of joy, disgust, and sadness. The tweets that garnered joyful emotion were typically about fundraising and helping raise funds for cancer research. There is a spike of disgust on September 19 for a tweet that claims that Eric Trump funneled cancer research money directly to Donald Trump. The negative sentiment mentions suggested that childhood cancer is extremely underfunded and that cures cannot be found unless there's money. Tweets with the emotion of joy did not have many spikes, but were consistent throughout the 4 months when a user tweeted about raising money or doing a good deed for children's cancer research. This theme actually has a majority of posts labeled as a neutral sentiment. Out of all 71,251 twitter posts in our query, 18% had a negative sentiment and 9% had a positive sentiment, with the remaining 73% as neutral. The positive mentions were about raising funds to cure childhood cancer. There were not many spikes, but one minor spike in December of 2021 of positive sentiment was about a partnership between @BuffDogeCoin and @BuffSantaToken where they were raising money around Christmas time dog rescue and curing kids cancer. The negative sentiment mentions suggested that childhood cancer is extremely underfunded and that cures cannot be found unless there's money. These tweets show the struggles of paying for cancer treatment and the desperate need to raise money which leads to a more negative sentiment. The top shared URLs took people to donation websites where people could donate money, like [shop.wwe.com](https://shop.wwe.com) and [www.justgiving.com](https://www.justgiving.com). The St. Jude website was also the third highest shared site within this topic.

# THEME ANALYSIS: TREATMENT

The theme treatment has 11,321 mentions and 8,684 unique authors making up 16% of all posts in the dataset. This theme when broken down by sentiment has 73% neutral mentions, 22% negative, and 5% positive. The biggest positive sentiment spike was on November 1st. These tweets were about a book that Rene Marsh from CNN wrote in memory of her son and all the proceeds go towards pediatric brain tumor research. On this same day other conversations were about how St. Jude had embarked on its largest expansion in 60 years. Over 11 billion dollars was invested for research and treatment for kids with catastrophic diseases. The negative spike was on September 19th and the majority of the tweets were about the Eric Trump Foundation funneling with cancer research and stealing money. The next big negative spike was from December 28th and about how dangerous COVID is for children receiving cancer treatments. The neutral spike is from November 3rd and conversations were about new clinical trials and treatments that were being worked on.

The demographics showed that the percentage of males and females talking about this theme were very similar with 51% males and 49% females. Most mentions came from health practitioners and researchers. This is expected because these professions are consistently discussing new treatments. Additionally it was not surprising that the highest interest in this theme was family and parenting. The top hashtag was #TheMiraclesWorkersBook. This hashtag was mentioned by @CNNPR and for a book that was written by a CNN correspondent in memory of her son who passed away from a tumor. Other top hashtags were #cancer, #biancesmartchain, and research. All the top hashtags had neutral sentiments. The top URL was <https://thedailyedge.substack.com/p/the-crimes-of-donald-trump?s=r>. This URL led to a Daily Edge article about the crimes of Donald Trump and how he stole money from kids with cancer. The top mention was also @TheDailyEdge and had a negative sentiment. Other top mentions were @NEWgemsBSC, @CNNPR, and @brikeilarcnn. The top influencers were @TheDailyEdge and @WorldCryptoCent. @NBA had a tweet that was about how Ronald McDonald House New York provided housing for pediatric patients.

# THEME ANALYSIS: COST

The theme Cost has 11,228 mentions and 3,642 unique authors which is 15.8% of the total volume. When broken down by sentiment, this theme has 9% positive, 73% neutral, and 18% negative sentiment. This makes sense because this theme was chosen to analyze people talking about the insane cost of childhood cancer treatment and how expensive it is to get treatment for a child who is diagnosed, so we expected to get a more negative than positive sentiment. The demographics of this topic are 68% male and 32% female, which is not a surprise to us because there is nothing to do with this topic that is polarized towards one gender. This data has two major (relevant) spikes, one on October 8th and one on November 12th. There were also spikes on October 9th and October 15th, but these spikes were simply from bots spam tweeting in order to raise money for cancer treatment as it has such a high cost. The first spike (October 8th), actually has no defined source and is just an influx of tweets surrounding the cost of childhood cancer treatment. The spike on November 12th however, was mostly retweets of a @ProPublica/@Phil\_Lewis\_ tweet talking about how St. Jude promises not to bill families for cancer treatment but they do not help families with the expenses of travel and housing while their children are staying at a St. Jude hospital, which can be a major burden to families.

The emotions for this topic are 62% joy and 34% sadness. This was completely unexpected, as we expected the main emotions of this topic to be anger over the cost of cancer treatment and sadness about the idea of childhood cancer in general and how much it costs. The top two tweets are both related to the topic as well. The #1 most mentioned tweet is by @Smartoshis and is about a fundraiser he is putting on in order to help alleviate the cost of cancer treatment from families with children who are diagnosed (638 retweets). The second-most mentioned is a @ProPublica tweet linking to an article mentioned above about St. Jude not covering enough of the cost for families who are staying in their hospitals. The top tweeter with an impact of 88.7 was @IndiaToday. They tweeted one tweet to an article about how a delayed diagnosis affects children with cancer so much because the length from diagnosis to treatment is so long that the cancer has time to spread. The top shared URL was [https://www.gofundme.com/f/help-lannie-fight-cancer-and-save-a-life?utm\\_campaign=p\\_cp+share-sheet&utm\\_medium=copy\\_link\\_all&utm\\_source=customer](https://www.gofundme.com/f/help-lannie-fight-cancer-and-save-a-life?utm_campaign=p_cp+share-sheet&utm_medium=copy_link_all&utm_source=customer), a link to a GoFundMe helping to alleviate the high cost of childhood cancer treatment for a family who recently had a child diagnosed. It was shared 3819 times.

# THEME ANALYSIS: COVID

The theme COVID has 5,114 mentions and 4,585 unique authors which is 7.17% of all posts in the dataset. This theme, when broken down by sentiment, has 3% positive, 27% negative, and 70% neutral mentions. Since COVID was a worldwide pandemic that affected many in a horrible way, especially those in the experiencing childhood cancer, it was expected that most of the sentiment would be negative. The demographics of this topic are 55% male and 45% female, which was expected because this is an issue that affects everyone. There was one major spike in this topic on September 7th. This spike had a mostly neutral context and was mainly retweets of a tweet by @MarinaMedvin about research being done on children who were diagnosed with COVID and only the ones with pre-existing conditions (i.e. Cancer) died. This is why we included COVID as a category, because there was a lot of conversation about how the children mortality rates for COVID-19 were skewed by those who already had pre-existing conditions. This was a large point of conversation for COVID safety and vaccines, and was very important to the conversation.

The top emotions for this topic were sadness (35%) and disgust (53%). Most of the tweets that were classified as disgust were simply the retweets from the tweet mentioned above that was criticizing plus other tweets criticizing those who are not vaccinated who are taking up hospital beds from kids who need cancer treatment. The tweets classified as sadness are also criticizing those who were not safe about COVID and how there should have been more of an effort made to keep kids safe, especially those with preexisting conditions such as cancer. The top mentioned tweet is a tweet by @CoryBMorgan, stating that if the government put the same kind of attention into discovering a cure for cancer as they did for curing COVID, it would be more beneficial because Cancer kills more kids every year than COVID. This tweet got 170 retweets and was widely popular. The top tweeter is @RashidaTlaib, who had an impact of 88.8. She tweeted about Build Back Better and used allusions to cancer and COVID in her support. The top shared URL is <https://www.wsj.com/articles/cdc-covid-19-coronavirus-vaccine-side-effects-hospitalization-kids-11626706868> which was shared 1650 times. This is the link that was connected to the @MarinaMedvin tweet about child COVID deaths really being children who had preexisting conditions (such as cancer).

# **GENDER ANALYSIS**

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# GENDER ANALYSIS: FEMALE

The female demographic has 3733 mentions and 2,674 unique authors. The highest spike was on September 19th and conversations were about either treatment or fundraising. Most tweets had a negative sentiment on this day and were about the Eric Trump Foundation funneling with cancer research money. Positive tweets from September 19th were about fundraising events for cancer research in honor of childhood cancer awareness month. September 1st also had a big spike and had a neutral sentiment. The majority of the tweets on this day were about it being the first day of childhood cancer awareness month. When looking at the mention volume by sentiment 64% mentions were neutral, 25% were negative, and only 11% were positive. The largest occupation category was teacher and the highest category of interest was family and parenting.

The emotions for females are 44% sadness and 36% joy. Most of the sad tweets were spreading awareness for childhood cancer and the joy tweets were about fundraising events and how much money had been raised. The top tweeter was Brianna Keilar. She is a co-anchor for New Day and her tweet was about how Rene Marsh from CNN lost her son to cancer and wrote a book about it. She is also the top influencer with an average reach of 118,022. The hashtags with the most mentions were #cancer and #miracleworkersbook. Popular topics are childhood cancer, pediatric cancer, kids, and money.

# GENDER ANALYSIS: MALE

The male demographic has 1,683 mentions and 1,220 unique authors. The highest spike was on September 19th like females and conversations were about donations and fundraising. Another spike was on September 7th and tweet conversations were about how kids that had covid had a mortality rate of zero and children with leukemia had a mortality rate of zero. When looking at mention volume by sentiment it was very similar to female sentiments. Neutral sentiment was the largest with 66%, negative had 20%, and positive had 14%. The most common occupation is executive.

Men showed more happy emotions than women. Males' largest emotions were 42% joy and 34% sadness. Most joyful tweets were about fundraising. The top tweet is @jaketapper and he is a lead anchor on CNN. He also tweeted about Rene Marsh's book in honor of her son that passed away because of cancer. The hashtags with the most mentions were #childhoodcancer and #cancer.

# APPENDIX

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# TOPIC QUERY

((Childhood OR Pediatric OR Child OR Children OR Kids OR Infant OR Baby OR Babies OR Young OR #children OR #babies OR #infant))

AND

(Cancer OR cancers OR chemo OR leukemia OR lymphoma OR tumors OR tumor OR “blood disorder” OR sarcoma OR hemophilia OR neuroblastoma OR melanoma OR osteosarcoma OR “Sickle Cell” OR chemotherapy OR cancerous OR #cancer OR #cancers OR #cancerous OR #leukemia OR #lymphoma OR #tumor OR #tumors OR #chemo OR #chemotherapy OR #cancerous)

AND

(Research OR study OR “research study” OR researchers OR researching OR studies OR studying OR curing OR cure OR cures OR therapy OR treatment OR treatments OR treating OR investigating OR “finding out more” OR #research OR #treatment OR #treatments OR #researchers OR #researching OR lab OR labs OR data))