

# Project 4

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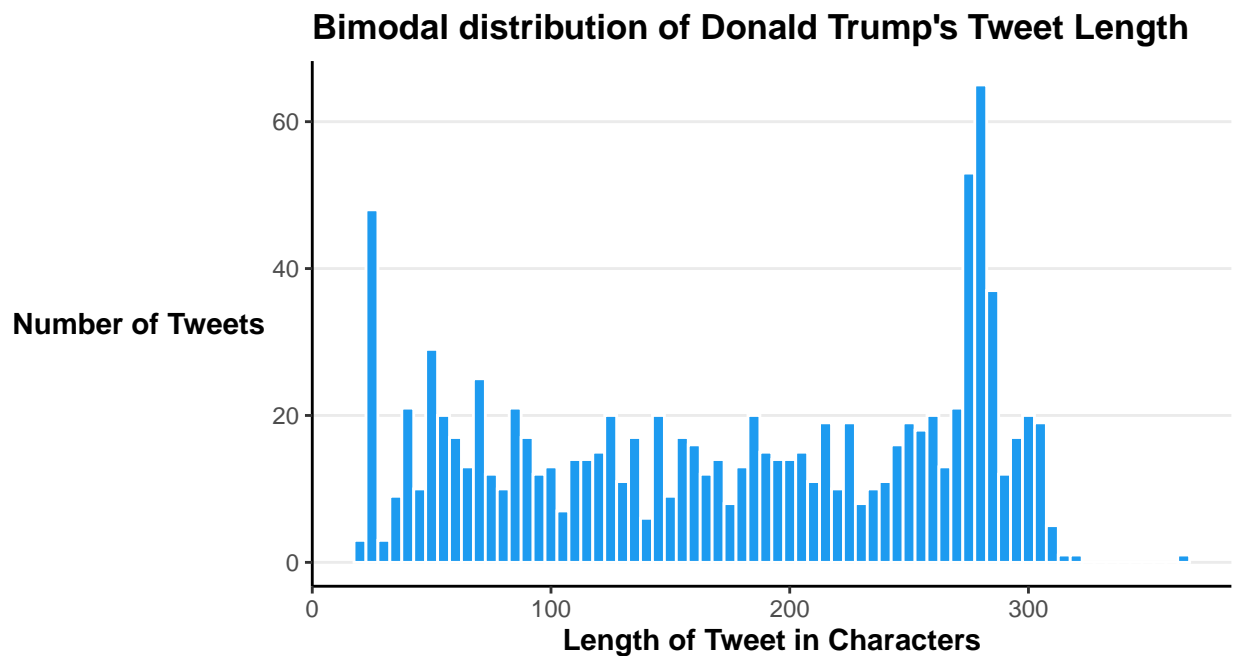
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## Load data

```
dtweets <- read_rds("../data//dtweets.rds")
```

## Question 2

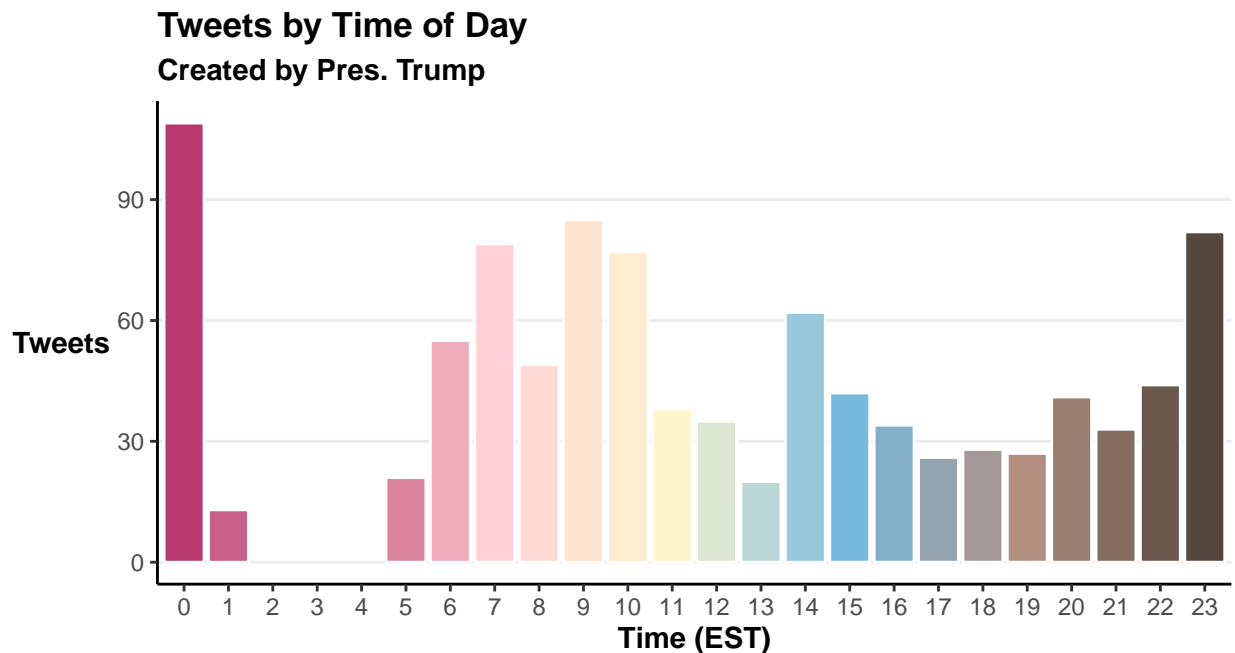
```
dtweets |>
  mutate(length = str_length(text)) |>
  ggplot() +
    geom_histogram(aes(x = length), fill = "#1D9BF0", color = "white", binwidth = 5) +
    labs(title = "Bimodal distribution of Donald Trump's Tweet Length") +
    xlab("Length of Tweet in Characters")+
    ylab("Number of Tweets") +
    theme(legend.position = "none")
```



The interesting finding from this histogram is that there are tweets longer than the 280 character limit.

## Question 3

```
dtweets |>
  mutate(date = with_tz(as_datetime(created_at), tzzone = "America/New_york"),
         time = as_hms(date))|>
  ggplot(aes(x = factor(hour(time), levels = 0:23))) +
  geom_bar(aes(fill = as.factor(hour(time))), color = "white") +
  # Went with geom_bar because it was easier when converting to factor for color changes.
  # Also with this method and box plot there is no overlapping time,
  # it is truly by hour, geom_hist did not give us by hour, even when playing with bins.
  scale_fill_taylor(palette = "lover") +
  scale_x_discrete(drop = FALSE) +
  labs(
    title = "Tweets by Time of Day",
    subtitle = "Created by Pres. Trump",
    x = "Time (EST)",
    y = "Tweets"
  ) +
  theme(legend.position = "none")
```



In this plot we can see what hours of the day in eastern time President Trump was or was not on twitter. We can clearly see that he would not post from 2 AM to 4 AM.

## Question 4

```
mentions <- dtweets |>
  pull(text) |>
```

```

str_extract_all(pattern = "\\@\\w{4,15}")

map(mentions, str_split, pattern = ", ") |>
  unlist() |>
  as_tibble() |>
  group_by(value) |>
  count() |>
  ungroup() |>
  arrange(desc(n)) |>
  head(n = 20)
## # A tibble: 20 x 2
##   value                n
##   <chr>              <int>
## 1 @realDonaldTrump    108
## 2 @FoxNews           18
## 3 @CDCgov            16
## 4 @POTUS             12
## 5 @foxandfriends     8
## 6 @WhiteHouse        8
## 7 @CMSSGov           6
## 8 @nytimes            6
## 9 @SteveDaines        6
## 10 @Mike_Pence        5
## 11 @trish_regan       5
## 12 @washingtonpost    5
## 13 @Battelle          4
## 14 @FoxBusiness       4
## 15 @GovBillLee        4
## 16 @SenJohnBarrasso   4
## 17 @stevenmnuchin1    4
## 18 @US_FDA            4
## 19 @BretBaier         3
## 20 @DHS_Wolf         3

```

## Question 5

```

dtweets |>
  top_n(favorite_count, n = 10) |>
  select(text) |>
  pull() |>
  str_wrap(width = 40) |>
  cat(sep = "\n \n") |>
  message()
## I am a great friend and admirer of the
## Queen & the United Kingdom. It was
## reported that Harry and Meghan, who left
## the Kingdom, would reside permanently
## in Canada. Now they have left Canada for
## the U.S. however, the U.S. will not pay
## for their security protection. They must
## pay!

```

```
##
## THIS IS WHY WE NEED BORDERS!
##
## HYDROXYCHLOROQUINE & AZITHROMYCIN,
## taken together, have a real chance to
## be one of the biggest game changers in
## the history of medicine. The FDA has
## moved mountains - Thank You! Hopefully
## they will BOTH (H works better with A,
## International Journal of Antimicrobial
## Agents).....
##
## We are going to WIN, sooner rather than
## later!
##
## The world is at war with a hidden enemy.
## WE WILL WIN!
##
## God Bless the USA!
##
## TODAY IS A NATIONAL DAY OF PRAYER. GOD
## BLESS EVERYONE!
##
## THE UNITED STATES LOVES ITALY! https://
## t.co/DESUJ4QM41
##
## It is my great honor to declare Sunday,
## March 15th as a National Day of Prayer.
## We are a Country that, throughout
## our history, has looked to God for
## protection and strength in times like
## these....
##
## Mini Mike, you're easy! https://t.co/
## rxFiqSB9RQ https://t.co/G2M1QHjOHV
##
```

## Question 6

In what tweet did President Trump tag the most people in?

```
new_mentions <- mentions |>
  map(length) |>
  unlist() |>
  as_tibble() |>
  rename(mentions = value) |>
  mutate(index = row_number()) |>
  arrange(desc(mentions))

dtweets |>
  mutate(index = row_number()) |>
  inner_join(new_mentions) |>
```

```

top_n(mentions, n = 1) |>
select(text) |>
str_wrap(width = 50) |>
cat()
## @DrTedros @WHOWPRO @pahowho @WHO_Europe @WHOAFRO
## @WHOEMRO @WHOSEARO "<U+0001F51F> it's normal &amp;
## understandable to feel anxious, especially if
## you live in a country or community that has
## been affected. Find out what you can do in your
## community. Discuss how to stay safe with your
## workplace, school or place of worship"-@DrTedros
## #COVID19 #coronavirus https://t.co/M4BQzpdh2j

```