

Analysing Twitter for Ubisoft

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Contents

8.1 Analysing the Relationship Between Friends and Followers for Twitter Users	1
8.1.1 Retrieve the posts from Twitter	1
8.2.2 Count of Followers and Friends	1
Summary Statistics	1
References	2

8.1 Analysing the Relationship Between Friends and Followers for Twitter Users

8.1.1 Retrieve the posts from Twitter

relevant posts can be retrieved from twitter by utilising the `rtweet` package, packages can be loaded for use in **R** thusly:

The `rtweet` API will search for tweets that contain all the words of a query regardless of uppercase or lowercase usage [kearney2019].

In order to leverage the *Twitter* API it is necessary to use tokens provided through a *Twitter* developer account:

and hence all tweets containing a mention of *Ubisoft* can be returned and saved to disk as shown in listing 3:

8.2.2 Count of Followers and Friends

In order to identify the number of users that are contained in the *tweets* the `unique()` function can be used to return a vector of names which can then be passed as an index to the vector of counts as shown in listing 4, this provides that 81.7% of the tweets are by unique users.

```

1  # Load Packages
   ↪ -----
2  setwd("~/Dropbox/Notes/DataSci/Social_Web_Analytics/SWA-Project/scripts_1
   ↪ /")
3
4  if (require("pacman")) {
5    library(pacman)
6  } else{
7    install.packages("pacman")
8    library(pacman)
9  }
10
11  pacman::p_load(xts, sp, gstat, ggplot2, rmarkdown, reshape2,
12                ggmap, parallel, dplyr, plotly, tidyverse,
13                reticulate, UsingR, Rmpfr, swirl, corrplot,
14                gridExtra, mise, latex2exp, tree, rpart,
15                lattice, coin, primes, epitools, maps, clipr,
16                ggmap, twitterR, ROAuth, tm, rtweet, base64enc,
17                httpuv, SnowballC, RColorBrewer, wordcloud,
18                ggwordcloud, tidyverse)

```

Listing 1: Load the Packages for *R*

Summary Statistics

The average number of friends and followers from users who posted tweets mentioning *Ubisoft* can be returned using the `mean()` as shown in listing 5 this provides that on average each user has 586 friends and 63,620 followers.

```
## 63620.24
## 585.9016
```

References

references

```

1  # Set up Tokens
   ↪ =====
2
3  options(RCurlOptions = list(
4    verbose = FALSE,
5    capath = system.file("CurlSSL", "cacert.pem", package = "RCurl"),
6    ssl.verifypeer = FALSE
7  ))
8
9  setup_twitter_oauth(
10     consumer_key = "*****",
11     consumer_secret =
12     ↪ "*****",
13     access_token = "*****",
14     access_secret = "*****"
15   )
16
17  # rtweet
   ↪ =====
18  tk <- rtweet::create_token(
19     app = "SWA",
20     consumer_key = "*****",
21     consumer_secret =
22     ↪ "*****",
23     access_token =
24     ↪ "*****",
25     access_secret = "*****",
26     set_renv = FALSE

```

Listing 2: Import the twitter tokens (redacted)

```

1  n <- 1000
2  tweets.company <- search_tweets(q = 'ubisoft', n = n, token = tk,
3                                include_rts = FALSE)
4  save(tweets.company[,], file = "resources/Download_1.Rdata")

```

Listing 3: Save the Tweets to the HDD as an rdata file

```
1 (users <- unique(tweets.company$name)) %>% length()
2 (x <- tweets.company$followers_count[duplicated(tweets.company$name)])
3 (y <- tweets.company$friends_count[duplicated(tweets.company$name)])
4
5 ## > [1] 817
```

Listing 4: Return follower count of twitter posts

```
1 x<- rnorm(090)
2 y<- rnorm(090)
3 (xbar <- mean(x))
4 (ybar <- mean(y))
```

Listing 5: Determine the average number of friends and followers