Twitter

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7/4/2017

Crear Credenciales

Lo primero será ir al siguiente enlace https://apps.twitter.com y registrarnos para obtener nuestras credenciales quedando un fichero llamado "credenciales.R" con la siguiente estructura:

```r
#Cargamos las librerías
library("ROAuth")
library("base64enc");
library("twitteR");
library("streamR");

#Cargar parámetros de configuración
reqURL <- "https://api.twitter.com/oauth/request_token"
accessURL <- "https://api.twitter.com/oauth/access_token"
authURL <- "https://api.twitter.com/oauth/authorize"
options(httr_oauth_cache=T)

#Cargar las credenciales obtenidas del paso anterior
consumer_key <- "pegar aquí la credencial"
consumer_secret <-"pegar aquí la credencial"
access_token <-"pegar aquí la credencial"
access_secret <-"pegar aquí la credencial"

#Ejecutar la autenticación de TwitteR
setup_twitter_oauth(consumer_key, consumer_secret, access_token, access_secret)

#streamR authentication
credentials_file <- "my_oauth.Rdata"
if (file.exists(credentials_file)){
  load(credentials_file)
} else {
  cred <- OAuthFactory$new(consumerKey = consumer_key, consumerSecret =
                            consumer_secret, requestURL = reqURL, accessURL = accessURL, authURL = autl
  cred$handshake(cainfo = system.file("CurlSSL", "cacert.pem", package = "RCurl"))
  save(cred, file = credentials_file)
}
```

Obtener datos de twitter

```r
# Cargar la librería específica de TwitterR
library(twitteR);

# Leer el fichero de credenciales creado anteriormente, ¡cuidado con la ruta del fichero!.
source('../credenciales.R')
```

```
## Loading required package: RCurl

## Loading required package: bitops

## Loading required package: rjson

## [1] "Using direct authentication"
# Función que permite buscar: #hastag, @usuarios, palabras
tweets <- searchTwitter("#brexit", n=100, lang="en")

# Quedarse solo con el primer tweet para datos concretos del mismo
tweet <- tweets[[1]];
# Mostrar la estructura del tweet
#str(tweet)
# Obtener el texto del tweet:
tweet$getText()
```

```
## [1] "RT @ChrisCathrine: UKGov completed impact assessment studies for their Hard #Brexit approach bu
# Obtener información acerca del usuario:
usuario <- getUser(tweet$getScreenName());
# Mostrar la estructura del usuario
#str(usuario)
# Obtener el nombre del usuario
usuario$getName()
```

```
## [1] "Angela Marston"
```

Instalación de paquetes necesarios

```
# Instalar el paquete Sentiment
if (!require('pacman')) install.packages('pacman&')
pacman::p_load(devtools, installr)
install.Rtools()
install_url('http://cran.r-project.org/src/contrib/Archive/Rstem/Rstem_0.4-1.tar.gz')
install_url('http://cran.r-project.org/src/contrib/Archive/sentiment/sentiment_0.2.tar.gz')
if (!require('pacman')) install.packages('pacman')
pacman::p_load(twitteR, sentiment, plyr, ggplot2, wordcloud, RColorBrewer, httpuv, RCurl, base64enc)
options(RCurlOptions = list(cainfo = system.file('CurlSSL', 'cacert.pem', package = 'RCurl')))
setup_twitter_oauth(api_key,api_secret,access_token,access_token_secret)
setup_twitter_oauth(api_key,api_secret)
```

Análisis de sentimientos

Sacar tweets

Lo primero que vamos a hacer será sacar twetts sobre el brexit y sacar de ellos su texto

```
tweets <- searchTwitter("#brexit", n=100, lang="en")
texto_tweets = sapply(tweets, function(x) x$getText())
```

Limpiado del texto

Vamos a ver un ejemplo de los primeros tweets encontrados de como vamos limpiando el texto

```
head(texto_tweets)
```

```
## [1] "RT @ChrisCathrine: UKGov completed impact assessment studies for their Hard #Brexit approach but
## [2] "RT @RCorbettMEP: Tories turn on Theresa \n#Brexit is not necessary to address the #migration iss
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad #Brexit wi
## [4] "RT @theordinaryman2: It's been suggested that UK should keep\" Free Movement of People\" from EU
## [5] "RT @_Ungagged: From No to Yes - Ungagged! The team give their views on #scotref, #brexit, George
## [6] "#Fashion What is Article 50 and what happens now it has been triggered? #Brexit https://t.co/wKI
```

```
cat("\nEliminamos retweet\n")
```

```
##
## Eliminamos retweet
```

```
texto_tweets = gsub('(RT|via)((?:\\b\\W*@\\w+)+)', '', texto_tweets)
head(texto_tweets)
```

```
## [1] ": UKGov completed impact assessment studies for their Hard #Brexit approach but haven't released
## [2] ": Tories turn on Theresa \n#Brexit is not necessary to address the #migration issue. \nMay named
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad #Brexit wi
## [4] ": It's been suggested that UK should keep\" Free Movement of People\" from EU ?\n\nRT if you dis
## [5] ": From No to Yes - Ungagged! The team give their views on #scotref, #brexit, George Galloway and
## [6] "#Fashion What is Article 50 and what happens now it has been triggered? #Brexit https://t.co/wKI
```

```
cat("\nEliminar usuarios\n")
```

```
##
## Eliminar usuarios
```

```
texto_tweets = gsub('@\\w+', '', texto_tweets)
head(texto_tweets)
```

```
## [1] ": UKGov completed impact assessment studies for their Hard #Brexit approach but haven't released
## [2] ": Tories turn on Theresa \n#Brexit is not necessary to address the #migration issue. \nMay named
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad #Brexit wi
## [4] ": It's been suggested that UK should keep\" Free Movement of People\" from EU ?\n\nRT if you dis
## [5] ": From No to Yes - Ungagged! The team give their views on #scotref, #brexit, George Galloway and
## [6] "#Fashion What is Article 50 and what happens now it has been triggered? #Brexit https://t.co/wKI
```

```
cat("\nEliminamos puntuación\n")
```

```
##
## Eliminamos puntuación
```

```
texto_tweets = gsub('[[:punct:]]', '', texto_tweets)
head(texto_tweets)
```

```
## [1] " UKGov completed impact assessment studies for their Hard Brexit approach but havent released re
## [2] " Tories turn on Theresa \nBrexit is not necessary to address the migration issue \nMay named as
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad Brexit wil
## [4] " Its been suggested that UK should keep Free Movement of People from EU \n\nRT if you disagree\n
## [5] " From No to Yes  Ungagged The team give their views on scotref brexit George Galloway and much m
## [6] "Fashion What is Article 50 and what happens now it has been triggered Brexit httpstcowKIhagHg7A
```

```
cat("\nEliminamos números\n")
```

```
##
## Eliminamos números
```

```r
texto_tweets = gsub('[[:digit:]]', '', texto_tweets)
head(texto_tweets)
```

```
## [1] " UKGov completed impact assessment studies for their Hard Brexit approach but havent released r
## [2] " Tories turn on Theresa \nBrexit is not necessary to address the migration issue \nMay named as
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad Brexit wi
## [4] " Its been suggested that UK should keep Free Movement of People from EU \n\nRT if you disagree\n
## [5] " From No to Yes  Ungagged The team give their views on scotref brexit George Galloway and much m
## [6] "Fashion What is Article  and what happens now it has been triggered Brexit httpstcowKIhagHgA ht
```

```r
cat("\nEliminamos enlaces html\n")
```

```
##
## Eliminamos enlaces html
```

```r
texto_tweets = gsub('http\\w+', '', texto_tweets)
head(texto_tweets)
```

```
## [1] " UKGov completed impact assessment studies for their Hard Brexit approach but havent released r
## [2] " Tories turn on Theresa \nBrexit is not necessary to address the migration issue \nMay named as
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad Brexit wi
## [4] " Its been suggested that UK should keep Free Movement of People from EU \n\nRT if you disagree\n
## [5] " From No to Yes  Ungagged The team give their views on scotref brexit George Galloway and much m
## [6] "Fashion What is Article  and what happens now it has been triggered Brexit  "
```

```r
cat("\nEliminamos espacios innecesarios\n")
```

```
##
## Eliminamos espacios innecesarios
```

```r
texto_tweets = gsub('[ \t]{2,}', '', texto_tweets)
texto_tweets = gsub('^\\s+|\\s+$', '', texto_tweets)
head(texto_tweets)
```

```
## [1] "UKGov completed impact assessment studies for their Hard Brexit approach but havent released res
## [2] "Tories turn on Theresa \nBrexit is not necessary to address the migration issue \nMay named as
## [3] "Nothing like a little honesty to set things right\nMay must let us know\njust how bad Brexit wi
## [4] "Its been suggested that UK should keep Free Movement of People from EU \n\nRT if you disagree\n
## [5] "From No to YesUngagged The team give their views on scotref brexit George Galloway and much mor
## [6] "Fashion What is Articleand what happens now it has been triggered Brexit"
```

```r
#Función para eliminar posibles errores al pasar a minúscula
try.error = function(x){
  # creamos un missing value
  y = NA
  # tryCatch error
  try_error = tryCatch(tolower(x), error=function(e) e)
  # if not un error
  if (!inherits(try_error, 'error'))
    y = tolower(x)
  return(y)
}
cat("\nPasamos a minúsucla si no hay error\n")
```

```
##
## Pasamos a minúsucla si no hay error
```

```
texto_tweets = sapply(texto_tweets, try.error)
head(texto_tweets)
```

```
##         UKGov completed impact assessment studies for their Hard Brexit approach but havent released re
##      "ukgov completed impact assessment studies for their hard brexit approach but havent released res
##          Tories turn on Theresa \nBrexit is not necessary to address the migration issue \nMay named a
##        "tories turn on theresa \nbrexit is not necessary to address the migration issue \nmay named as
##   Nothing like a little honesty to set things right\nMay must let us know\njust how bad Brexit will g
## "nothing like a little honesty to set things right\nmay must let us know\njust how bad brexit will ge
##         Its been suggested that UK should keep Free Movement of People from EU \n\nRT if you disagree\n
##      "its been suggested that uk should keep free movement of people from eu \n\nrt if you disagree\n
##                      From No to YesUngagged The team give their views on scotref brexit George Galloway
##                "from no to yesungagged the team give their views on scotref brexit george galloway a
##                                Fashion What is Articleand what happens now it has been tr
##                                "fashion what is articleand what happens now it has been trig
```

```
cat("\nEliminamos NAs en el texto\n")
```

```
## 
## Eliminamos NAs en el texto
```

```
texto_tweets = texto_tweets[!is.na(texto_tweets)]
names(texto_tweets) = NULL
head(texto_tweets)
```

```
## [1] "ukgov completed impact assessment studies for their hard brexit approach but havent released res
## [2] "tories turn on theresa \nbrexit is not necessary to address the migration issue \nmay named as
## [3] "nothing like a little honesty to set things right\nmay must let us know\njust how bad brexit wil
## [4] "its been suggested that uk should keep free movement of people from eu \n\nrt if you disagree\n
## [5] "from no to yesungagged the team give their views on scotref brexit george galloway and much mor
## [6] "fashion what is articleand what happens now it has been triggered brexit"
```