HW 12

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## IPA FUNCTIONS

library(httr, quietly = T)  
  
setwd("C:/Users/Jaquelin Martinez/Desktop/MATH 110/hw 12/Martinez")  
  
#I made both newspaper api key and google api key global objects  
globo\_api\_key <- "82928f3a320a4614b4e9bef5ba051b69"  
google\_api\_key <- "AIzaSyA6BWicoLRoK3doX7oyNzs5YMEzxg8Q47A"  
  
#this function helps you construct a url for your newspaper  
search\_newspaper\_url <- function(globo\_key, word) {  
 base <- "https://newsapi.org/v2/everything?q="  
 query <- word  
 sort <- "&sortBy=relevancy"  
 mid\_base<- "&sources=globo&apiKey="  
 key <- globo\_key  
 url <- paste(base,query,sort,mid\_base,key, sep="")  
 return(url)  
}  
  
  
  
  
#this function helps you access the newspaper using the url function  
#I did this here, so I would only have to insert my url in the following functions  
access\_newspaper <- function (url) {  
   
 x <- httr::GET(url=url)  
 x <- jsonlite::fromJSON(rawToChar(x$content))  
 return(x)  
}  
  
  
  
#this function will help you translate text of the ith title in the results  
translate\_text <- function(url, google\_api, i) {  
 newspaper <- access\_newspaper(url)  
   
 text <- unlist(newspaper$articles$title)  
 text <- text[i]  
 source <- "pt"  
 target <- "en"  
   
 body <- paste("{",  
 "'q':'", text, "',",   
 "'source':'", source, "',",  
 "'target':'", target, "',",  
 "'format':'text',",   
 "}", sep="")  
   
 base <- "https://translation.googleapis.com/language/translate/v2?key="  
 url <- paste(base, google\_api, sep="")  
 x <- httr::POST(url, body = body)  
 x <- jsonlite::fromJSON(rawToChar(x$content))  
 out <- x$data$translations$translatedText  
  
 return(out)  
}  
  
#this function will help you turn your translated text into speech  
text\_to\_speech <- function(url, google\_api, i) {  
 text <- translate\_text(url, google\_api, i)  
   
 input <- paste("'input':{'text':'", text, "'}", sep="")  
 voice <- "'voice':{'languageCode':'en-AU','name':'en-AU-Standard-A','ssmlGender':'FEMALE'}"  
 output <- "'audioConfig':{'audioEncoding':'MP3'}"  
  
 s\_body <- paste("{", input, ",", voice, ",", output, "}", sep="")  
   
 base\_url <- "https://texttospeech.googleapis.com/v1/text:synthesize?key="  
 url <- paste(base\_url, google\_api, sep="")  
   
 x <- httr::POST(url, body = s\_body)  
 x <- jsonlite::fromJSON(rawToChar(x$content))  
   
 Sys.setenv(output\_string=x$audioContent)  
 audio <- x$audioContent  
  
 con <- file("sound.txt", "w")  
 writeLines(audio, con = con)  
 close(con)  
  
 shell("certutil -decode sound.txt sound.mp3")  
 shell("start sound.mp3")  
   
}

## SOURCING MY CODE AND SHOWING OUTPUT FOR FUNCTIONS

source("globo\_ api.R")  
  
search\_newspaper\_url(globo\_api\_key, "Bolsonaro")

## [1] "https://newsapi.org/v2/everything?q=Bolsonaro&sortBy=relevancy&sources=globo&apiKey=82928f3a320a4614b4e9bef5ba051b69"

#I created an object, so I wouldn't have to continue writing my search word and newspaper api again and again in the functions   
url <- search\_newspaper\_url(globo\_api\_key, "Bolsonaro")  
  
access\_newspaper(url)$articles[1,]

## source.id source.name author  
## 1 globo Globo NA  
## title  
## 1 'NÃ£o interessa se vai ter status de ministÃ©rio', diz Bolsonaro sobre pasta do Trabalho  
## description  
## 1 O futuro do MinistÃ©rio do Trabalho continua sendo a grande incÃ³gnita em relaÃ§Ã£o ao governo do presidente eleito Jair Bolsonaro (PSL). Nesta quarta-feira, Bolsonaro disse que a legislaÃ§Ã£o trabalhista serÃ¡ preservada, e frisou que ainda nÃ£o estÃ¡... Leia mais  
## url  
## 1 https://oglobo.globo.com/economia/nao-interessa-se-vai-ter-status-de-ministerio-diz-bolsonaro-sobre-pasta-do-trabalho-23233723  
## urlToImage  
## 1 https://extra.globo.com/incoming/23234247-00f-009/w976h550-PROP/presidente.jpg  
## publishedAt  
## 1 2018-11-14T13:51:53Z  
## content  
## 1 O futuro do MinistÃ©rio do Trabalho continua sendo a grande incÃ³gnita em relaÃ§Ã£o ao governo do presidente eleito Jair Bolsonaro (PSL). Nesta quarta-feira, Bolsonaro disse que a legislaÃ§Ã£o trabalhista serÃ¡ preservada, e frisou que ainda nÃ£o estÃ¡ definido se a pâ\200¦ [+2899 chars]

translate\_text(url, google\_api\_key, 3)

## [1] "Roberto Campos Neto will lead the BC and Mansueto remains in the Treasury in the next government"

text\_to\_speech(url, google\_api\_key, 3)