

A little trick I thought about this week; using Google Sheets, which includes a “googletranslate()” function to translate a survey that we’re preparing at work, from French to English, and using R of course. You’ll need a Google account for this. Also, keep in mind that you’ll be sending the text you want to translate to Google, so don’t go sending out anything sensitive.

First, let’s load the needed packages:

```
library(google sheets4)
library(dplyr)
library(tibble)
```

As an example, I’ll be defining a tibble with one column, and two rows. Each cell contains a sentence in French from the best show in the entire French speaking world, Kaamelott:

```
my_french_tibble <- tribble(~french,
                             "J'apprécie les fruits au sirop",
                             "C'est pas faux")
```

To this tibble, I’m now adding two more columns, that contain the following string: “=googletranslate(A:A,”fr”,”en”)”. This is exactly what you would write in the formula bar in Sheets. Then, we need to convert that to an actual Google Sheets formula using `gs4_formula()`:

```
(
  my_french_tibble <- my_french_tibble %>%
    mutate(english = '=googletranslate(A:A, "fr", "en")') %>%
    mutate(portuguese = '=googletranslate(A:A, "fr", "pt")') %>%
    mutate(english = gs4_formula(english),
           portuguese = gs4_formula(portuguese))
)
## # A tibble: 2 x 3
##   french      english      portuguese
##
## 1 J'appréci... =googletranslate(A:A, "fr", "en") =googletranslate(A:A,
## "fr", "pt")
## 2 C'est pas... =googletranslate(A:A, "fr", "en") =googletranslate(A:A,
## "fr", "pt")
```

We’re ready to send this to Google Sheets. As soon as the sheet gets uploaded, the formulas will be evaluated, yielding translations in both English and Portuguese.

To upload the tibble to sheets, run the following:

```
french_sheet <- gs4_create("repliques_kaamelott",
                           sheets = list(perceval = my_french_tibble))
```

You’ll be asked if you want to cache your credentials so that you don’t need to re-authenticate between R sessions:



Your browser will the open a tab asking you to login to Google:



At this point, you might get a notification on your phone, alerting you that there was a login to your account:



If you go on your Google Sheets account, this is what you'll see:



And if you open the sheet:



Pretty nice, no? You can of course download the workbook, or better yet, never leave your R session at all and simply get back the workbook using either the `{googledrive}` package, which simply needs the name of the workbook (`{googledrive}` also needs authentication):

```
(
translations <- googledrive::drive_get("repliques_kaamelott") %>%
  read_sheet
)
```

You'll get a new data frame with the translation:

```
Reading from "repliques_kaamelott"
Range "perceval"
# A tibble: 2 x 3
  french                english                portuguese
1 J'apprécie les fruits au... I appreciate the fruits in... I apreciar os
  frutos em...
2 C'est pas faux        It is not false        Não é falsa
```

Or you can use the link to the sheet (which does not require to re-authenticate at this point):

```
translations <- read_sheet("the_link_goes_here", "perceval")
```

You could of course encapsulate all these steps into a function and have any text translated very easily! Just be careful not to send out any confidential information out...