Review

Form a group of three to work on the following questions

- List as many as possible the types of data that are freely available through Twitter API;
- List the types of data that are NOT available through the free-tier Twitter API

The Types of Free and Available Data

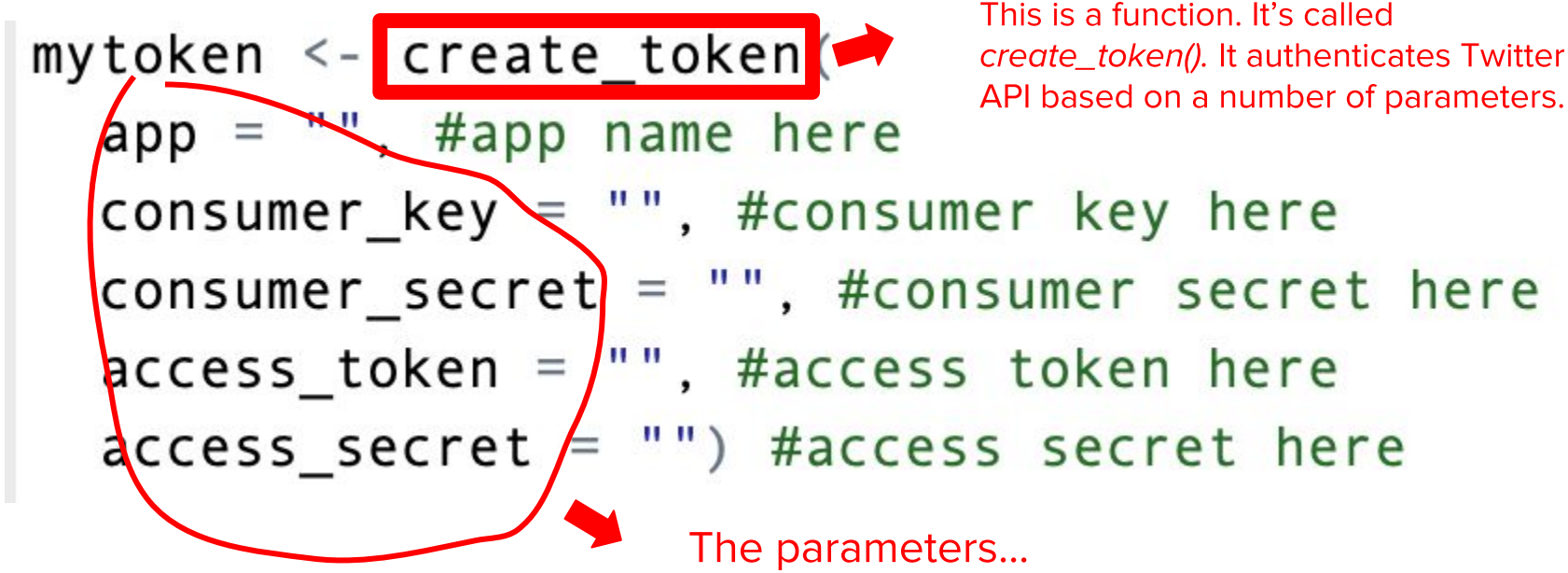
- Recent tweets that match given keywords/hashtags
- A user's recent 3,200 timeline tweets
- A user's followers and friends
- A list of users matching given hashtags/keywords on their Twitter bio

The Types of Data NOT Freely Available

- Historical tweets
- The complete Twitter streams

R Function Explained

In R, a *function* performs a task based on inputs and predefined logics.



R Function Explained

In the examples below, identify R functions and parameters for the function.

```
tweets1 <- search_tweets("#polarvortex", n = 100, token=mytoken)
```

```
save_as_csv(mentions, "trump's_mentions.csv")
```

R Cheat Sheet

A list of R functions commonly used in collecting Twitter data. You will use them in tutorials and practice scripts. Do you recall using any of them?

- **create_token()**
- **search_tweets()** or **stream_tweets()**
- **get_timelines()**
- **lookup_users()**
- **get_followers()**
- **get_friends()**
- **search_users()**

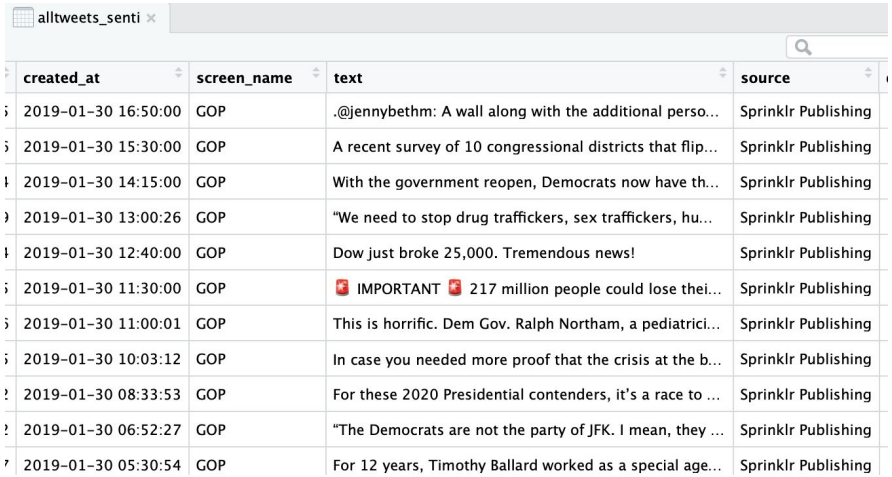
Mini hackathon (15 mins)

Form a team of three and work on:

- Get tweets based on a keyword/hashtag or get tweets from a user's timeline;
- Find the most retweeted tweet in your dataset;
- Each team will compete for finding the most viral tweet.

Explore the Metadata in Your Dataset

- Based on the tweets your team has collected, list all available metadata (perhaps you should review the definition of metadata).
- Hint: the function *colnames()* can give you a list of columns in your data frame.



alltweets_senti

created_at	screen_name	text	source
2019-01-30 16:50:00	GOP	.@jennybethm: A wall along with the additional perso...	Sprinklr Publishing
2019-01-30 15:30:00	GOP	A recent survey of 10 congressional districts that flip...	Sprinklr Publishing
2019-01-30 14:15:00	GOP	With the government reopen, Democrats now have th...	Sprinklr Publishing
2019-01-30 13:00:26	GOP	“We need to stop drug traffickers, sex traffickers, hu...	Sprinklr Publishing
2019-01-30 12:40:00	GOP	Dow just broke 25,000. Tremendous news!	Sprinklr Publishing
2019-01-30 11:30:00	GOP	🚨 IMPORTANT 🚨 217 million people could lose thei...	Sprinklr Publishing
2019-01-30 11:00:01	GOP	This is horrific. Dem Gov. Ralph Northam, a pediatrici...	Sprinklr Publishing
2019-01-30 10:03:12	GOP	In case you needed more proof that the crisis at the b...	Sprinklr Publishing
2019-01-30 08:33:53	GOP	For these 2020 Presidential contenders, it’s a race to ...	Sprinklr Publishing
2019-01-30 06:52:27	GOP	“The Democrats are not the party of JFK. I mean, they ...	Sprinklr Publishing
2019-01-30 05:30:54	GOP	For 12 years, Timothy Ballard worked as a special age...	Sprinklr Publishing

Brainstorming

- Imagine what insights can be gained from the available Twitter metadata. List as many possibilities as possible (use your imagination).

Brainstorming

- Based on the type of metadata available, can you propose something that uses the data for social good?
- Can you also think of ways in which having access to such data may result in unintended (or intended) bad consequence?

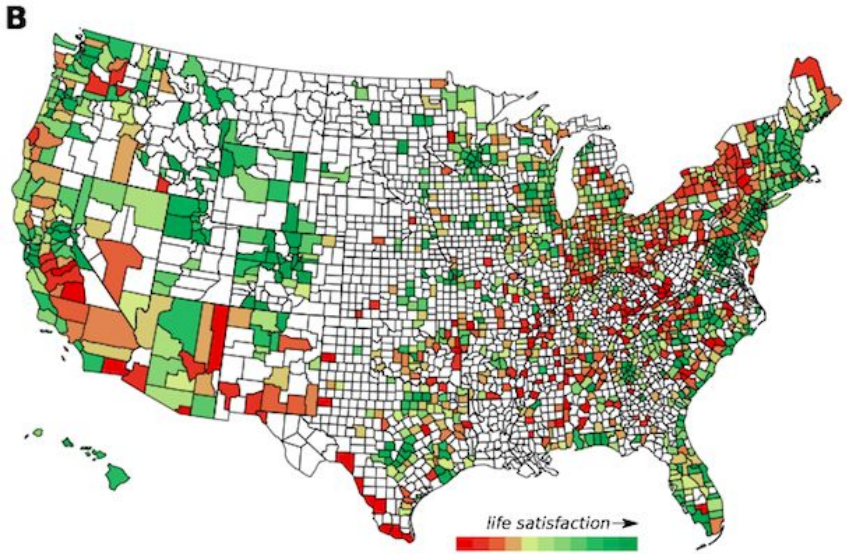
Good examples:

- Mapping Twitter data for disaster response

Brainstorming

A good but debatable example

- Use tweets to predict the wellbeing of a community



Brainstorming

- Work with your team to review the metadata in your dataset. Mark those that you think are private. Explain why they are private information.

In-class practice

W3_Collect_and_Visualize_Twitter_Data.R

Required tutorials for THIS WEEK