



MAX-PLANCK-INSTITUT  
FÜR DEMOGRAFISCHE  
FORSCHUNG

MAX PLANCK INSTITUTE  
FOR DEMOGRAPHIC  
RESEARCH

# Using the Facebook API

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# Structure

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- **Introduction to Facebook Data**

- The Intuition
- Facebook and its API
- Querying and Retrieving Data
- Using R for Automatizing
- More parameters :

Demographics, Interests and Behaviors





# Using the Facebook API


## The Intuition

Locations ⓘ Everyone in this location ▼

Mexico

📍 Mexico

📍 Include ▼ Type to add more locations Browse



Drop Pin

Add Locations in Bulk

Age ⓘ 16 ▼ - 24 ▼

Gender ⓘ All Men Women

Languages ⓘ Enter a language...

### Platforms

▶ Facebook	<input checked="" type="checkbox"/>
▶ Instagram	<input type="checkbox"/>
▶ Audience Network	<input type="checkbox"/>
▶ Messenger	<input checked="" type="checkbox"/>

### Audience Size



Your audience selection is fairly broad.

Potential Reach: 13,000,000 people ⓘ



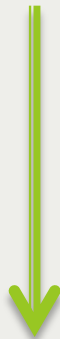
<https://www.facebook.com/adsmanager>



# Using the Facebook API

## Facebook and its API

### Facebook Application Programming Interface (API)



An **API** is a set of URLs that **return data** responses

“The [Facebook] Marketing APIs offer **programmatic access** to manage your Facebook ad campaigns, **Custom Audiences**, and reports.”

**Source:** <https://developers.facebook.com/docs/apis-and-sdks>





# Facebook and its API

For using the Facebook Advertising platform you need:

- A Facebook account [So, log in]
- Set up a Facebook Marketing App and Obtain its Token and Creation Act. [Check First\_Step.pdf]

- To read the Facebook policies:

<https://developers.facebook.com/policy/>





# Using the Facebook API

Data retrieved in  
**Firefox** browser

## Querying and Retrieving

query="https://graph.facebook.com/v3.2/act\_<<creation\_act>>/delivery\_estimate?access\_token=<<TOKEN>>&include\_headers=false&method=get&pretty=0&suppress\_http\_code=1&method=get&optimization\_goal=REACH&pretty=0&suppress\_http\_code=1&targeting\_spec={"geo\_locations":{"countries":["MX"]},"genders":["1"],"age\_min":16,"age\_max":24}"

```
{
  "data": [
    {
      "daily_outcomes_curve": {
        "spend": 0,
        "reach": 0,
        "impressions": 0,
        "actions": 0,
        "estimate_dau": 8896159,
        "estimate_mau": 13000000,
        "estimate_ready": true
      }
    }
  ]
}
```

### Permissions

- Any access token can be used to make this request.

Source: [\\*](#)

More info:

<https://developers.facebook.com/docs/graph-api/overview>

\* <https://developers.facebook.com/docs/graph-api/reference/v3.3/url>



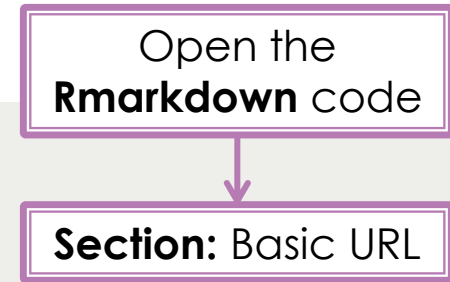


# Using the Facebook API

Now replace

- **<<creation\_act>>**
- **<<TOKEN>>**

With your own information and paste the query in your browser.



[https://graph.facebook.com/v3.2/act\\_<<creation\\_act>>/delivery\\_estimate?access\\_token=<<TOKEN>>&include\\_headers=false&method=get&pretty=0&suppress\\_http\\_code=1&method=get&optimization\\_goal=REACH&pretty=0&suppress\\_http\\_code=1&targeting\\_spec={"geo\\_locations":{"countries":\["MX"\]},"genders":\[1\],"age\\_min":16,"age\\_max":24}](https://graph.facebook.com/v3.2/act_<<creation_act>>/delivery_estimate?access_token=<<TOKEN>>&include_headers=false&method=get&pretty=0&suppress_http_code=1&method=get&optimization_goal=REACH&pretty=0&suppress_http_code=1&targeting_spec={)





# Using the Facebook API

## Parameters:

Targeting Specs are ad set attributes that define who sees an ad. **source:** \* \_

All the parameters inside **targeting\_spec** must follow a **JSON** format

**targeting\_spec**={}  
• "geo\_locations":{"countries":["MX"]}

- "genders":[1]
- "age\_min":16
- "age\_max":24
- Etc...

More information about the parameters:

\* <https://developers.facebook.com/docs/marketing-api/targeting-specs>  
<https://developers.facebook.com/docs/marketing-api/buying-api/targeting>

More information about JSON format:

[https://www.w3schools.com/js/js\\_json\\_intro.asp](https://www.w3schools.com/js/js_json_intro.asp)







## Using the Facebook API

Open the  
**Markdown** code

# Using R for Automating

Total Population broken  
down by age, gender  
and country

For automating the queries one option is to use **R**:

```
library(tidyverse)
library(jsonlite)

test<-“query”

url(test)%>%fromJSON
```

```
> url(test)%>%fromJSON
$`data`
  daily_outcomes_curve estimate_dau estimate_mau estimate_ready
1           0, 0, 0, 0      8896159    13000000             TRUE
```





# Using the Facebook API

Open the  
**Markdown** code



...certain characteristics...

## More parameters:

## Demographics, Interests and Behaviors

<https://www.facebook.com/adsmanager>

Create



Reach



Ad Set /  
Audience



# Comments or Questions?



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