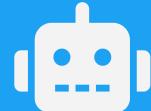


Make a Twitter bot with {rtweet} and GitHub Actions



LondonR, 2022-02-17

Matt Dray

matt-dray.github.io/mapbot-londonr

tl;dr

- Visit [@londonmapbot](#) ↗
- Fork on [GitHub](#) ↗
- Read the [original blog](#) ↗



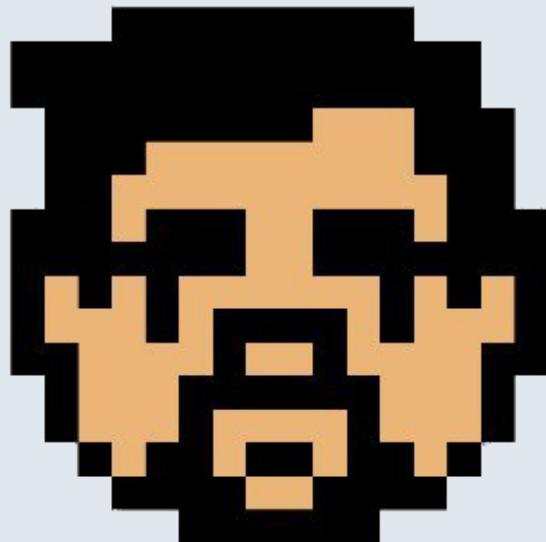
Eh?

1. Who?

2. What?

3. How?

Who?



[🌐 matt-dray.com](http://matt-dray.com) [@mattdray](https://twitter.com/mattdray) [Ⓜ matt-dray](https://matt-dray.com) [📝 rostrum.blog](https://rostrum.blog)



2022

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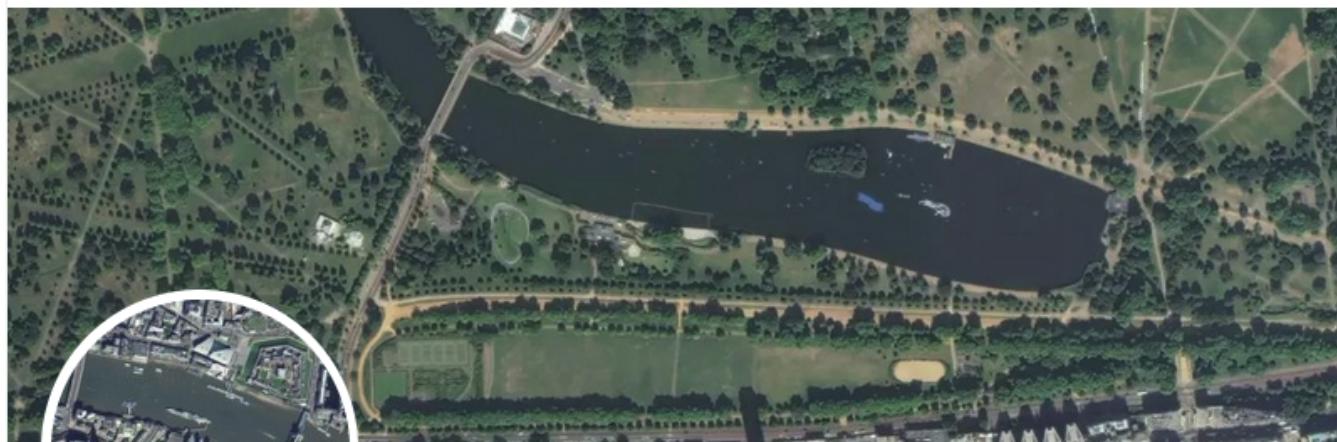
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2021-11-07

What?

**londonmapbot**

11.8K Tweets

**Following****londonmapbot**

@londonmapbot Follows you

📍 🤖 Random Greater-London coordinates fed to the Mapbox API and posted with {rtweet} via a GitHub Action. A bot by [@mattdray](#).

⌚ London ⚡ github.com/matt-dray/lond... 📅 Joined September 2020

36 Following 37 Followers

Followed by Steve Dempsey, Matt Kerlogue, and 3 others you follow

**londonmapbot**

11.8K Tweets

Following

**londonmapbot** @londonmapbot · Feb 8

51.5151, -0.0413

openstreetmap.org/#map=17/51.5151/-0.0413

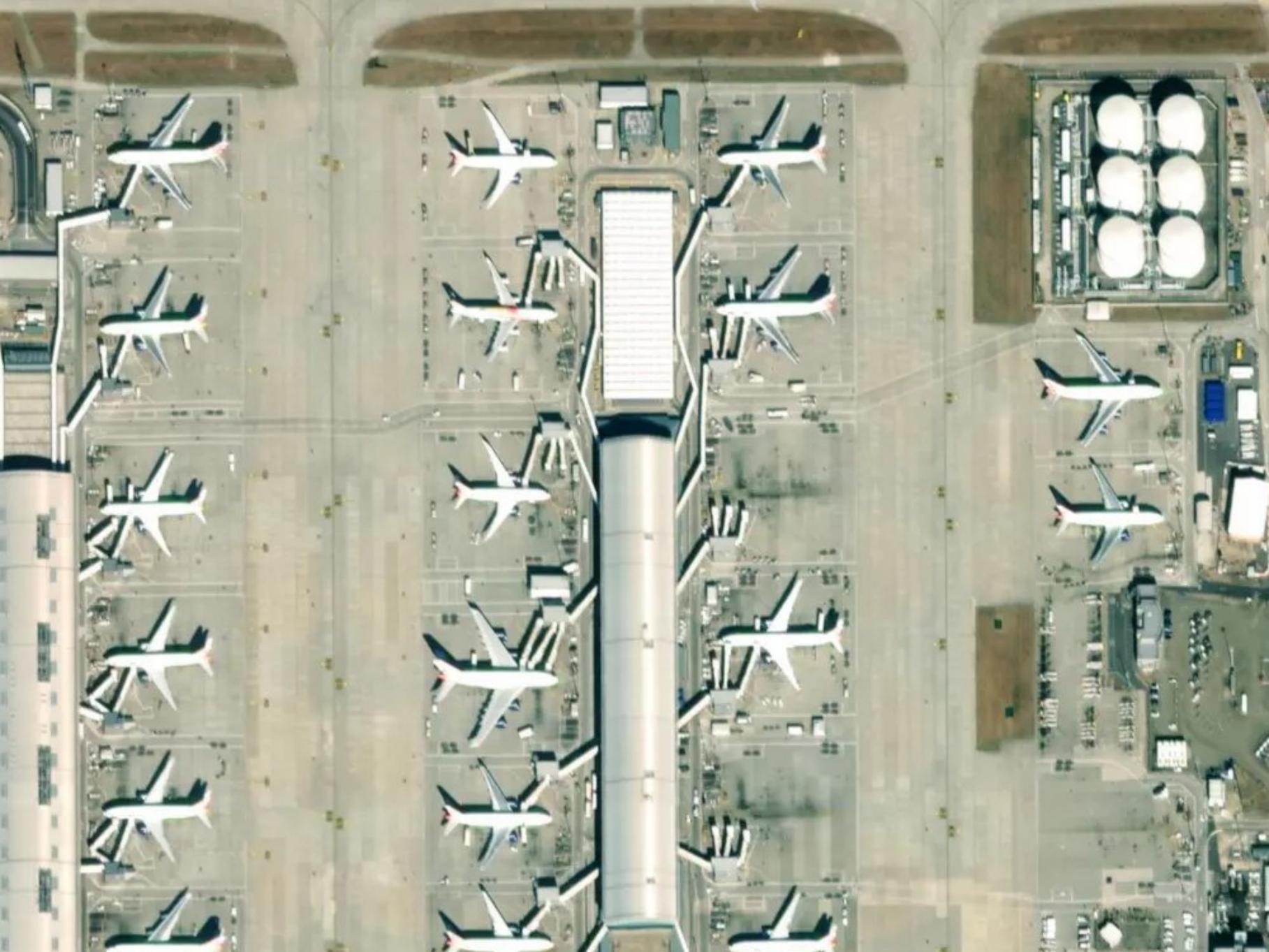
...

**londonmapbot** @londonmapbot · Feb 8

...











{rtweet} [⌚]

- Access Twitter from R
- Free API, with limitations



rtweet

Use twitter from R. Get started by reading [vignette\("rtweet"\)](#).

Installation

To get the current released version from CRAN:

```
install.packages("rtweet")
```



Usage

All users must be authenticated to interact with Twitter's APIs. The easiest way to authenticate is to use your personal twitter account - this will happen automatically (via a browser popup) the first time you use an rtweet function. See [auth_setup_default\(\)](#) for details. Using your personal account is fine for casual use, but if you are trying to collect a lot of data it's a good idea to authentication with your own Twitter "app". See [vignette\("auth", package = "rtweet"\)](#) for details.

```
library(rtweet)
```

rtweet should be used in strict accordance with Twitter's [developer terms](#).

Search tweets or users

Search for up to 10,000 tweets containing #rstats, the common hashtag used to refer to the R

Links

[View on CRAN](#)

[Browse source code](#)

[Report a bug](#)

License

[MIT + file LICENSE](#)

Community

[Contributing guide](#)

Citation

[Citing rtweet](#)

Developers

[Michael W. Kearney](#)

Author, maintainer

[Lluís Revilla Sancho](#)

Author

[Hadley Wickham](#)

Author

[More about authors...](#)

Dev status



- Satellite imagery and maps 
- Free API, with limitations 

 GitHub Actions [⌚]

- Run code on schedule
- Free, with limitations [⌚]



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Insights

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Workflows

New workflow

All workflows

R-CMD-check

pkgdown

test-coverage

All workflows

Showing runs from all workflows

Filter workflow runs

84 workflow runs

Event ▾ Status ▾ Branch ▾ Actor ▾

✓ Add GH Action for pkgdown

pkgdown #1: Commit 7866a45 pushed by matt-dray

main

3 months ago ...
3m 39s

✓ Add GH Action for pkgdown

test-coverage #41: Commit 7866a45 pushed by matt-dray

main

3 months ago ...
1m 58s

✓ Add GH Action for pkgdown

R-CMD-check #42: Commit 7866a45 pushed by matt-dray

main

3 months ago ...
15m 57s

✓ Merge pull request #33 from matt-dray/...

test-coverage #40: Commit 6e65a4b pushed by matt-dray

main

6 months ago ...
5m 15s

How?



1. Start an account
2. Get developer status 
3. Get elevated API access 
4. Create 'app', get keys 



1. Sign up [⌚]
2. Get tokens [⌚]



1. Create a public repo
2. Store keys/tokens as secrets ↗
3. Create two scripts
 - .github/workflows/bot.yml
 - bot.R

bot.yml ↗

```
name: londonmapbot

on:
  schedule:
    - cron: '42 0/2 * * *'

jobs:
  londonmapbot-post:
    runs-on: macOS-latest
    env:
      TWITTER_CONSUMER_API_KEY: ${{ secrets.TWITTER_CONSUMER_API_KEY }}
      TWITTER_CONSUMER_API_SECRET: ${{ secrets.TWITTER_CONSUMER_API_SECRET }}
      TWITTER_ACCESS_TOKEN: ${{ secrets.TWITTER_ACCESS_TOKEN }}
      TWITTER_ACCESS_TOKEN_SECRET: ${{ secrets.TWITTER_ACCESS_TOKEN_SECRET }}
      MAPBOX_PUBLIC_ACCESS_TOKEN: ${{ secrets.MAPBOX_PUBLIC_ACCESS_TOKEN }}
    steps:
      - uses: actions/checkout@v2
      - uses: r-lib/actions/setup-r@master
      - name: Install rtweet package
        run: Rscript -e 'install.packages("rtweet", dependencies = TRUE)'
      - name: Create and post tweet
        run: Rscript londonmapbot-tweet.R
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      TWITTER_ACCESS_TOKEN: ${{ secrets.TWITTER_ACCESS_TOKEN }}
      TWITTER_ACCESS_TOKEN_SECRET: ${{ secrets.TWITTER_ACCESS_TOKEN_SECRET }}
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      TWITTER_ACCESS_TOKEN: ${{ secrets.TWITTER_ACCESS_TOKEN }}
      TWITTER_ACCESS_TOKEN_SECRET: ${{ secrets.TWITTER_ACCESS_TOKEN_SECRET }}
      MAPBOX_PUBLIC_ACCESS_TOKEN: ${{ secrets.MAPBOX_PUBLIC_ACCESS_TOKEN }}
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      - uses: actions/checkout@v2
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      TWITTER_CONSUMER_API_SECRET: ${{ secrets.TWITTER_CONSUMER_API_SECRET }}
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      - name: Install rtweet package
        run: Rscript -e 'install.packages("rtweet", dependencies = TRUE)'
      - name: Create and post tweet
        run: Rscript londonmapbot-tweet.R
```

bot.R (1) ⚡

```
londonmapbot_token <- rtweet::create_token(  
    app = "londonmapbot",  
    consumer_key      = Sys.getenv("TWITTER_CONSUMER_API_KEY"),  
    consumer_secret   = Sys.getenv("TWITTER_CONSUMER_API_SECRET"),  
    access_token      = Sys.getenv("TWITTER_ACCESS_TOKEN"),  
    access_secret     = Sys.getenv("TWITTER_ACCESS_TOKEN_SECRET"))  
  
lon <- round(runif(1, -0.489, 0.236), 4)  
lon <- format(lon, scientific = FALSE)  
lat <- round(runif(1, 51.28, 51.686), 4)  
  
img_url <- paste0(  
    "https://api.mapbox.com/styles/v1/mapbox/satellite-v9/static/",  
    paste0(lon, ", ", lat),  
    ",15,0/600x400@2x?access_token=",  
    Sys.getenv("MAPBOX_PUBLIC_ACCESS_TOKEN"))  
  
temp_file <- tempfile()  
download.file(img_url, temp_file)
```

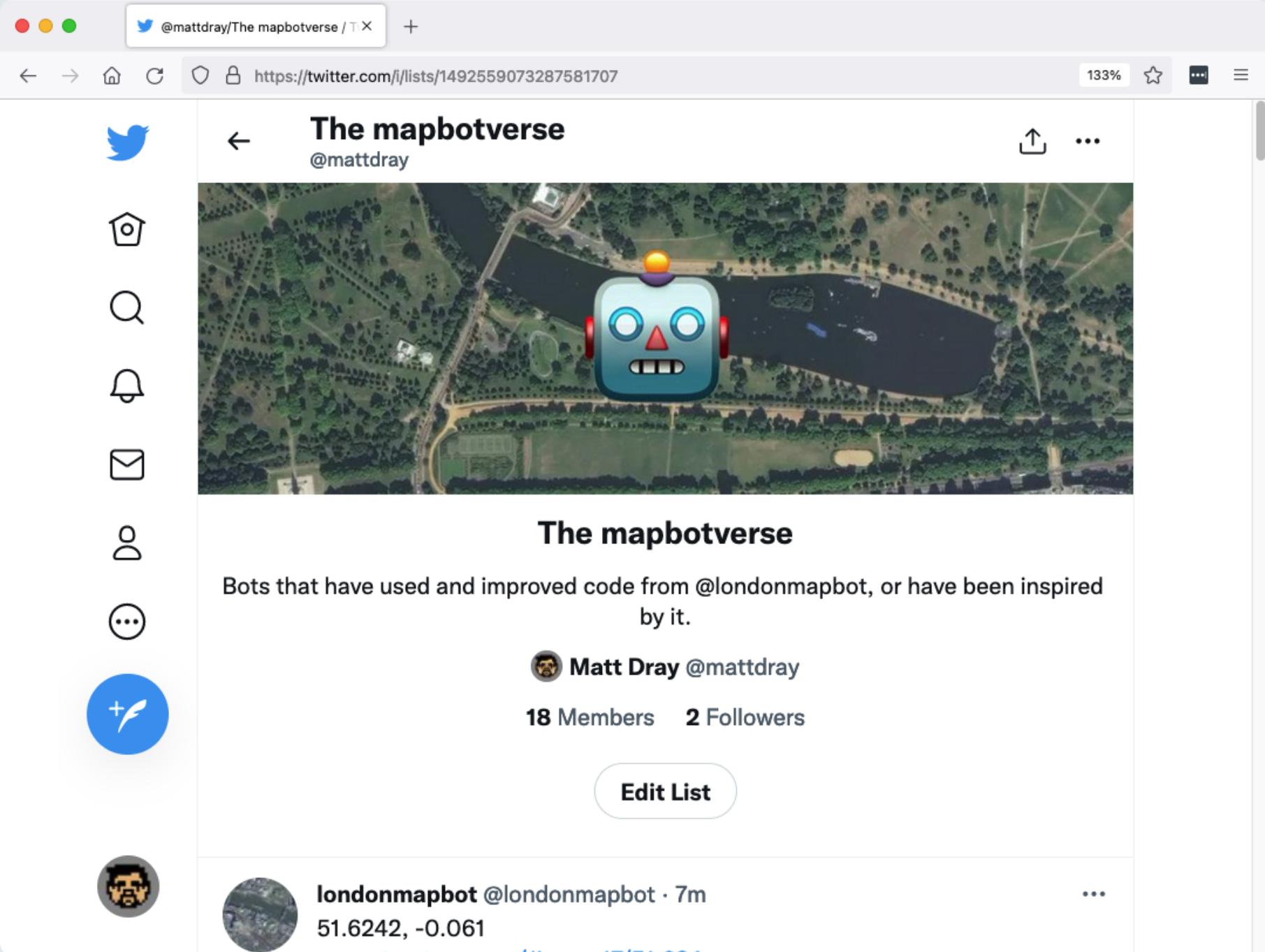
bot.R (1) ⚡

```
londonmapbot_token <- rtweet::create_token(  
  app = "londonmapbot",  
  consumer_key      = Sys.getenv("TWITTER_CONSUMER_API_KEY"),  
  consumer_secret   = Sys.getenv("TWITTER_CONSUMER_API_SECRET"),  
  access_token      = Sys.getenv("TWITTER_ACCESS_TOKEN"),  
  access_secret     = Sys.getenv("TWITTER_ACCESS_TOKEN_SECRET"))  
  
lon <- round(runif(1, -0.489, 0.236), 4)  
lon <- format(lon, scientific = FALSE)  
lat <- round(runif(1, 51.28, 51.686), 4)  
  
img_url <- paste0(  
  "https://api.mapbox.com/styles/v1/mapbox/satellite-v9/static/",  
  paste0(lon, ",", lat),  
  ",15,0/600x400@2x?access_token=",  
  Sys.getenv("MAPBOX_PUBLIC_ACCESS_TOKEN"))  
  
temp_file <- tempfile()  
download.file(img_url, temp_file)
```

bot.R (2) ⚡

```
latlon_details <- paste0(  
  lat, ", ", lon, "\n",  
  "https://www.openstreetmap.org/#map=17/", lat, "/", lon, "/"  
)  
  
rtweet::post_tweet(  
  status = latlon_details,  
  media  = temp_file,  
  token   = londonmapbot_token  
)
```

The mapbotverse 





España desde el cielo

482 Tweets

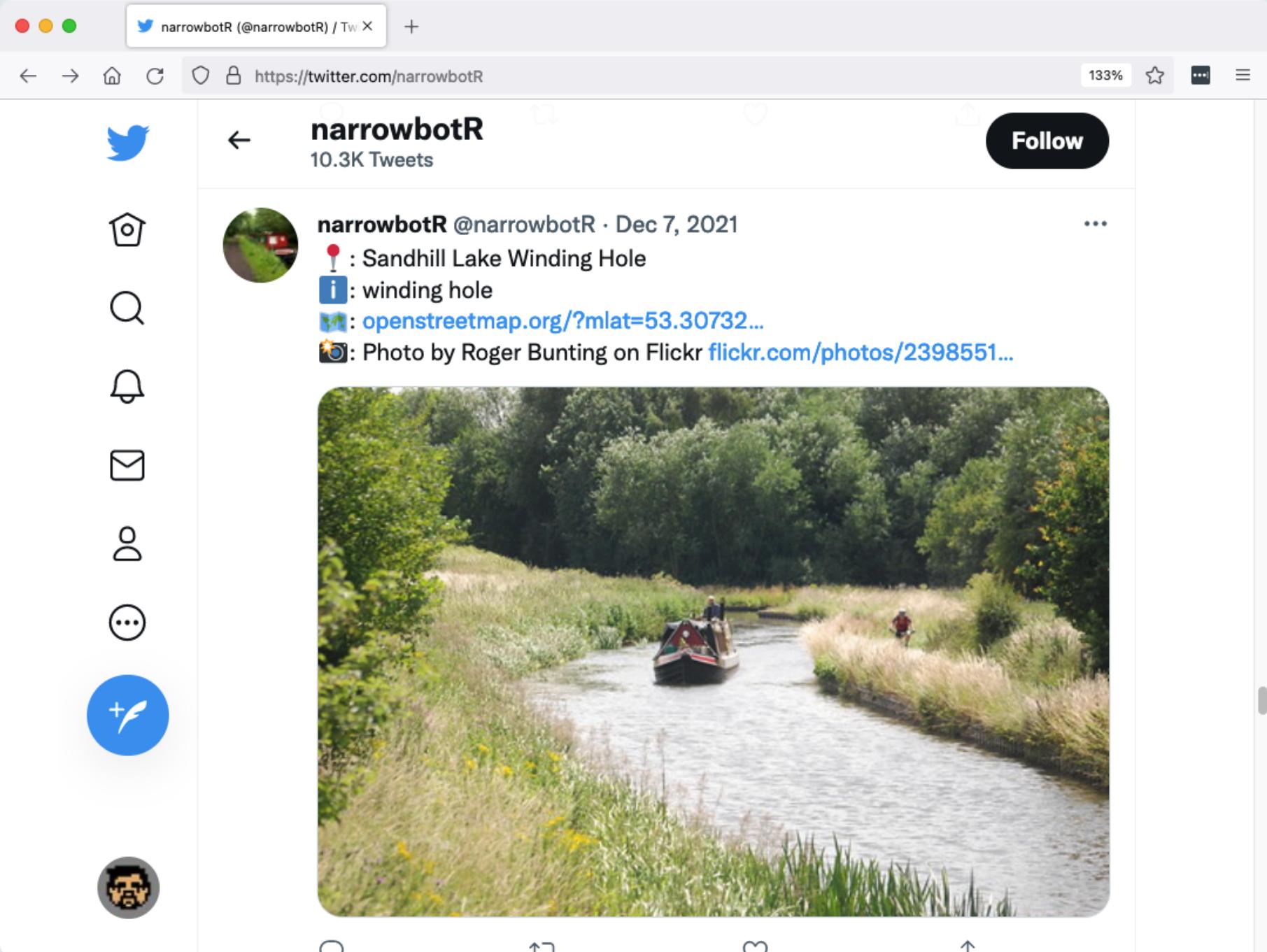
[Follow](#)**España desde el cielo @esmapbot · 12h**

38.7797, -0.7653

[google.es/maps/@38.7797,...](http://google.es/maps/@38.7797,-0.7653)

...







Big Book of R (250+ free R programming books)

303 Tweets



Big Book of R (250+ free R programming books)

@BigBookofR

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matt-dray / londonmapbot

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ee350a3 on 1 Jan 31 commits

[.github/workflows](#)

Execute GHA every two hours

6 months ago

[LICENSE.md](#)

Add license and readme

17 months ago

[README.md](#)

Include new mapbotverse accounts, hide behind...

last month

[londonmapbot-tweet.R](#)

Add lation text into status

16 months ago

[README.md](#)

londonmapbot

[repo status](#) [Concept](#) [Twitter](#) [@londonmapbot](#) [rostrum.blog](#) [post](#)

Source for the Twitter bot [@londonmapbot](#). It posts satellite images of random coordinates in Greater London using `{rtweet}`, MapBox and GitHub Actions. Built by [@mattdray](#).

About

Twitter bot: random London coordinates fed to the Mapbox API and posted with `{rtweet}` via a GitHub Action

www.twitter.com/londonmapbot

[twitter-bot](#) [twitter](#) [rstats](#) [mapbox](#)
[rtweet](#) [mapbox-api](#) [github-actions](#)

[Readme](#)

[MIT License](#)

[18 stars](#)

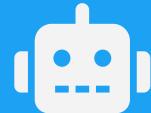
[2 watching](#)

[11 forks](#)

Languages

R 100.0%

Make a Twitter bot with {rtweet} and GitHub Actions



Visit [@londonmapbot](#) ↗

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