

Facebook Page Data Extraction using R: Prepared for Internet Policy Africa Meet March 1 2018

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```
# Note: At the moment, the only information that can be scraped from Facebook
# is the content of public pages.
# To Scrape data from Facebooks API,
# we'll go ahead and use the R packages for this.
# To get access to the Facebook API, you need an OAuth code.
# You can get yours going to the following URL: https://developers.facebook.com/tools/explorer

# Once you're there:
# 1. Click on "Get Access Token"
# 2. Copy the long code ("Access Token") and paste it here below, substituting the fake one I wrote:

# List of packages required for this Twitter Search API data analysis
pkg <- c("Rfacebook")

# Check if packages are not installed and assign the
# names of the packages not installed to the variable new.pkg
new.pkg <- pkg[!(pkg %in% installed.packages())]

# If there are any packages in the list that aren't installed,
# install them
if (length(new.pkg)) {
  install.packages(new.pkg, repos = "http://cran.rstudio.com")
}

# Load libraries for accessing the Twitter search API.
library(Rfacebook)

## Loading required package: httr
## Loading required package: rjson
## Loading required package: httpuv
##
## Attaching package: 'Rfacebook'
## The following object is masked from 'package:methods':
##
##   getGroup

# extract Facebook data. Add the long Access Token you just got from developers.facebook.com page.
fb_oauth = 'EAACEdEose0cBAHWQXktKdNUZAmiFbmlnbGKQwmmlrE9tiMw1iZBxoIwHcwbZCTr38FQoYsy0pbcsxGGqhoiIJl1fhp'

# Now get the user details you're logged in as.
getUsers("me", token=fb_oauth, private_info=TRUE)

##           id           name username first_name middle_name
## 1 104178460415833 Kampalr Usergroup      NA           NA      NA
##   last_name gender locale likes picture birthday location hometown
## 1      NA    NA     NA    NA     NA      NA      NA      NA
```

```
## relationship_status
## 1 NA

# Does it return your Facebook public information? Yes? Then we're ready to go. See also ?fbOAuth for
# information on how to get a long-lived OAuth token.

# The following line downloads the ~200 most recent posts on the facebook page of Donald Trump
page <- getPage("DonaldTrump", token=fb_oauth, n=20, reactions=TRUE, api="v2.9")

## 20 posts

# What information is available for each of these posts?
page[1,]

##              id likes_count    from_id    from_name
## 1 153080620724_10160636059080725      46889 153080620724 Donald J. Trump
##
## 1 You voted to finally put American citizens FIRST. But we can't do that until we end sanctuary cit
##      created_time type
## 1 2018-02-24T14:00:00+0000 link
##
## 1 https://action.donaldjtrump.com/defund-sanctuary-cities/?utm_source=facebook_djt_post&utm_medium=s
##      story comments_count shares_count love_count haha_count wow_count
## 1 <NA>          4088          4358          4504          555          44
##      sad_count angry_count
## 1          28          259

# page[which.max(page$likes_count),]
page[which.max(page$likes_count),]

##              id likes_count    from_id    from_name
## 3 153080620724_10160639905975725      56988 153080620724 Donald J. Trump
##
## 3 I want people coming into this country based on MERIT. I want people who have skills, who can supp
##      created_time type
## 3 2018-02-24T17:33:33+0000 video
##
##              link story
## 3 https://www.facebook.com/DonaldTrump/videos/10160639905975725/ <NA>
##      comments_count shares_count love_count haha_count wow_count sad_count
## 3          9334          16366          9697          1298          179          45
##      angry_count
## 3          285

page[which.max(page$comments_count),]

##              id likes_count    from_id    from_name
## 3 153080620724_10160639905975725      56988 153080620724 Donald J. Trump
##
## 3 I want people coming into this country based on MERIT. I want people who have skills, who can supp
##      created_time type
## 3 2018-02-24T17:33:33+0000 video
##
##              link story
## 3 https://www.facebook.com/DonaldTrump/videos/10160639905975725/ <NA>
##      comments_count shares_count love_count haha_count wow_count sad_count
## 3          9334          16366          9697          1298          179          45
##      angry_count
## 3          285
```

```
page[which.max(page$shares_count),]
```

```
##                               id likes_count      from_id      from_name
## 3 153080620724_10160639905975725      56988 153080620724 Donald J. Trump
##
## 3 I want people coming into this country based on MERIT. I want people who have skills, who can support
##          created_time  type
## 3 2018-02-24T17:33:33+0000 video
##
##                               link story
## 3 https://www.facebook.com/DonaldTrump/videos/10160639905975725/ <NA>
##   comments_count shares_count love_count haha_count wow_count sad_count
## 3           9334         16366      9697         1298         179         45
##   angry_count
## 3           285
```

```
# save extracted data to csv file
# Windows compute d:/internet_policy_fb.csv or right path to writable drive.
write.csv(page[1:20,], "~/internet_policy_fb.csv")
page[1:20,]
```

```
##                               id likes_count      from_id      from_name
## 1 153080620724_10160636059080725      46889 153080620724 Donald J. Trump
## 3 153080620724_10160639905975725      56988 153080620724 Donald J. Trump
## 4 153080620724_10160646931900725      11814 153080620724 Donald J. Trump
## 6 153080620724_10160649073760725      13846 153080620724 Donald J. Trump
## 5 153080620724_10160649070160725      32306 153080620724 Donald J. Trump
## 2 153080620724_10160636245920725      16649 153080620724 Donald J. Trump
## 7 153080620724_10160650486425725      33757 153080620724 Donald J. Trump
## 8 153080620724_10160651224895725      18338 153080620724 Donald J. Trump
## 9 153080620724_10160652073265725      10150 153080620724 Donald J. Trump
## 10 153080620724_10160654003715725         6724 153080620724 Donald J. Trump
## 11 153080620724_10160654222185725      19989 153080620724 Donald J. Trump
## 12 153080620724_10160655287330725      16583 153080620724 Donald J. Trump
## 13 153080620724_10160656061450725      19572 153080620724 Donald J. Trump
## 14 153080620724_10160657105085725      11457 153080620724 Donald J. Trump
## 15 153080620724_10160659422705725      18297 153080620724 Donald J. Trump
## 17 153080620724_10160659724215725      44150 153080620724 Donald J. Trump
## 16 153080620724_10160659425500725      33022 153080620724 Donald J. Trump
## 18 153080620724_10160661141770725      14200 153080620724 Donald J. Trump
## 19 153080620724_10160661751630725       6673 153080620724 Donald J. Trump
## 20 153080620724_10160663505695725      10833 153080620724 Donald J. Trump
##
## 1
## 3
## 4      President Donald J. Trump's schedule for Monday, February 26th:\n· 2018 White House Business S
## 6
## 5
## 2
## 7
## 8
## 9      President Donald J. Trump's schedule for Tuesday, February 27th: \n· Meeting with Republican memb
## 10
## 11
## 12
```

```

## 13
## 14
## 15
## 17
## 16
## 18
## 19
## 20
##          created_time    type
## 1  2018-02-24T14:00:00+0000  link
## 3  2018-02-24T17:33:33+0000  video
## 4  2018-02-26T12:00:20+0000  status
## 6  2018-02-26T15:05:41+0000  video
## 5  2018-02-26T16:06:00+0000  video
## 2  2018-02-26T19:02:26+0000  video
## 7  2018-02-26T21:13:00+0000  photo
## 8  2018-02-26T23:57:24+0000  video
## 9  2018-02-27T12:00:02+0000  status
## 10 2018-02-27T14:52:10+0000  video
## 11 2018-02-27T16:17:02+0000  video
## 12 2018-02-27T20:41:09+0000  photo
## 13 2018-02-28T00:06:00+0000  video
## 14 2018-02-28T12:00:54+0000  status
## 15 2018-02-28T17:04:55+0000  photo
## 17 2018-02-28T18:30:06+0000  video
## 16 2018-02-28T20:16:00+0000  photo
## 18 2018-02-28T23:50:36+0000  video
## 19 2018-03-01T12:00:35+0000  status
## 20 2018-03-01T13:49:33+0000  photo
##
## 1  https://action.donaldjtrump.com/defund-sanctuary-cities/?utm_source=facebook_djt_post&utm_medium=
## 3
## 4
## 6
## 5
## 2
## 7  https
## 8
## 9
## 10
## 11
## 12  https
## 13
## 14
## 15  https
## 17
## 16  https
## 18
## 19
## 20  https
##          story comments_count
## 1          <NA>          4088
## 3          <NA>          9334
## 4          <NA>          1846

```

## 6	<NA>	2297
## 5	<NA>	4573
## 2	<NA>	2923
## 7	<NA>	3657
## 8	Donald J. Trump is at The White House.	5206
## 9	<NA>	1398
## 10	Donald J. Trump shared Fox News's video.	1249
## 11	<NA>	3149
## 12	<NA>	1996
## 13	<NA>	3933
## 14	<NA>	1739
## 15	<NA>	2457
## 17	Donald J. Trump is at United States Capitol.	2669
## 16	<NA>	4848
## 18	<NA>	5674
## 19	<NA>	1692
## 20	<NA>	1608
##	shares_count love_count haha_count wow_count sad_count angry_count	
## 1	4358 4504 555 44 28 259	
## 3	16366 9697 1298 179 45 285	
## 4	596 1135 165 39 7 47	
## 6	1471 1335 490 93 34 148	
## 5	4839 3622 1069 146 45 152	
## 2	2684 1819 286 38 18 120	
## 7	4222 4628 1273 85 13 82	
## 8	2366 2342 281 38 20 115	
## 9	578 1071 169 31 3 40	
## 10	720 545 356 50 2 28	
## 11	3351 1933 528 107 17 85	
## 12	1453 2196 370 41 5 49	
## 13	2583 2741 531 84 10 74	
## 14	613 1459 149 24 17 42	
## 15	2155 2848 533 181 14 60	
## 17	12475 11024 155 87 2213 70	
## 16	2718 4143 1938 162 35 140	
## 18	1650 1632 108 73 68 1060	
## 19	331 701 109 27 7 45	
## 20	979 1465 174 47 6 22	