第一階段\_自己FB

#先把R資料庫清空

rm(list = ls())

#安裝需要的套件

install.packages("Rfacebook")

install.packages("dplyr")

library(Rfacebook)

library(dplyr)

接著我們要來認識facebook Graph API 先來[這裡](https://developers.facebook.com/tools/explorer)獲得權限

https://developers.facebook.com/tools/explorer



EAACEdEose0cBAMZBsNQMH7irgsx5UrTWHX5pxZBkhwOMTJBieTGxTcRoEVTKQKkQ5SCyCxKpwjSdGNREzVbC6LZA9HfFOnhgzkDv7nj3zg1QYi78EJmkvaLfTDAXAa7vKQhb5O0hUbz2NXZBJW5ZBoZCy0EoaNGUFOJoxoK4zGLZC9KcFOuRz3nUTMZAKKjkNZAYZD

按提交



按紅色處有語法介紹



選擇要開放的權限







之後可以來[這裡](http://www.tonylin.idv.tw/dokuwiki/doku.php/facebook%3Abasic%3Agraphapi)認識更多關於facebook Graph API 或直接閱讀[FB的使用文件](https://developers.facebook.com/docs/graph-api/overview)

**第一步驟，使用Rfacebook讀取你的資料**

#把你的權杖token放到這裡

token <- "EAACEdEose0cBAJZB3XdflTF0ZCLDAfNJ3ZAguQiXIZAaJxPfRd5vVAjpI8ovVlk5cnR3ZAZCjJAsy6VvZBKOs6qMuOq0ekYlmPUK605zbSYgiYMpo75R80Yh8qHQB8ozxSCUf9Nu0ZBOjC5bborg3zVMPMZBbumV5LPdCEXwynQ8ARCu1gvorWhE8iFPUZC8jZBkuEttoq8l9DEaQZDZD"

#抓自己FB上的資料

my <- getUsers("me", token , private\_info = TRUE)

#顯示自己FB上的名字

my$name

[1] "Chi Lo"

#顯示自己FB上的id

my$id

[1] "10206265595900074"

#接著使用getPage這個function抓取整個資訊

#先來看看Rfacebook裡有哪些fuction

#以下是抓期間內所有貼文的資訊，包含內文、按讚的人、留言

all\_post <- getPage(my$id, token, since='2017/06/01', until='2017/08/19',n=300) # n-Number of posts of page to return

17 posts 40 posts 62 posts 87 posts 112 posts 137 posts 142 posts

#列出資料的結構

str(all\_post)

'data.frame': 142 obs. of 11 variables:

 $ from\_id : chr "10206265595900074" "10206265595900074" "10206265595900074" "10206265595900074" ...

 $ from\_name : chr "Chi Lo" "Chi Lo" "Chi Lo" "Chi Lo" ...

 $ message : chr NA NA NA NA ...

 $ created\_time : chr "2017-08-07T08:45:43+0000" "2017-08-01T04:16:04+0000" "2017-07-30T06:31:47+0000" "2017-07-29T02:32:04+0000" ...

 $ type : chr "video" "link" "link" "photo" ...

 $ link : chr "https://www.facebook.com/imagineyourkorea/videos/1489320704461436/" "https://docs.google.com/forms/d/e/1FAIpQLSfRTmibU7m6u26P7ZgluqAGMIuMAYkucb8YiLVgGqVf3Z4htg/viewform?usp=fb\_send\_fb" "http://www.core-corner.com/Web/Main.php?stat=a\_Q8uRqdr" "https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1935451630004070/?type=3" ...

 $ id : chr "10206265595900074\_10213305216326185" "10206265595900074\_10213251831351594" "10206265595900074\_10213236277402755" "10206265595900074\_10213226337914274" ...

 $ story : chr "Chi Lo shared Imagine your Korea's video." "Chi Lo shared a link." "Chi Lo shared a link." "Chi Lo shared Moomin Cafe 嚕嚕米主題餐廳's photo." ...

 $ likes\_count : num 0 0 0 11 6 0 76 0 0 0 ...

 $ comments\_count: num 0 0 0 0 0 0 2 0 0 0 ...

 $ shares\_count : num 0 0 0 0 0 0 0 0 0 0 ...

**第二步驟，整理資料格式**

## #轉換時間格式(as.POSIXct 是Date-time Conversion Functions)

all\_post$created\_time<-as.POSIXct(all\_post$created\_time, format="%Y-%m-%dT%H:%M:%S%z")

all\_post$created\_time[1:5]

[1] "2017-08-07 16:45:43 CST" "2017-08-01 12:16:04 CST" "2017-07-30 14:31:47 CST" (%z 指時區, CST[中原標準時間](https://zh.wikipedia.org/wiki/%E4%B8%AD%E5%8E%9F%E6%A8%99%E6%BA%96%E6%99%82%E9%96%93)，**C**hungyuan **S**tandard **T**ime)

[4] "2017-07-29 10:32:04 CST" "2017-07-25 14:29:23 CST"

#新增日期欄

all\_post$created\_Date<-as.Date(all\_post$created\_time)

all\_post$created\_Date[1:5]

[1] "2017-08-07" "2017-08-01" "2017-07-30" "2017-07-29" "2017-07-25"

#新增小時欄

all\_post$created\_Hour<-substr(all\_post$created\_time,12,13)

all\_post$created\_Hour[1:5]

[1] "16" "12" "14" "10" "14"

#注意小時欄的資料格式

str(all\_post)

'data.frame': 142 obs. of 13 variables:

 $ from\_id : chr "10206265595900074" "10206265595900074" "10206265595900074" "10206265595900074" ...

 $ from\_name : chr "Chi Lo" "Chi Lo" "Chi Lo" "Chi Lo" ...

 $ message : chr NA NA NA NA ...

 $ created\_time : POSIXct, format: "2017-08-07 16:45:43" "2017-08-01 12:16:04" ...

 $ type : chr "video" "link" "link" "photo" ...

 $ link : chr "https://www.facebook.com/imagineyourkorea/videos/1489320704461436/" "https://docs.google.com/forms/d/e/1FAIpQLSfRTmibU7m6u26P7ZgluqAGMIuMAYkucb8YiLVgGqVf3Z4htg/viewform?usp=fb\_send\_fb" "http://www.core-corner.com/Web/Main.php?stat=a\_Q8uRqdr" "https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1935451630004070/?type=3" ...

 $ id : chr "10206265595900074\_10213305216326185" "10206265595900074\_10213251831351594" "10206265595900074\_10213236277402755" "10206265595900074\_10213226337914274" ...

 $ story : chr "Chi Lo shared Imagine your Korea's video." "Chi Lo shared a link." "Chi Lo shared a link." "Chi Lo shared Moomin Cafe 嚕嚕米主題餐廳's photo." ...

 $ likes\_count : num 0 0 0 11 6 0 76 0 0 0 ...

 $ comments\_count: num 0 0 0 0 0 0 2 0 0 0 ...

 $ shares\_count : num 0 0 0 0 0 0 0 0 0 0 ...

 $ created\_Date : Date, format: "2017-08-07" "2017-08-01" ...

 $ created\_Hour : chr "16" "12" "14" "10" ...

#開啟一個電子表格瀏覽像矩陣型式的R物件

View(all\_post)



#印出all\_post這個data frame 的第一部分(前6筆)

head(all\_post)

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo <NA> 2017-08-07 16:45:43 video

2 10206265595900074 Chi Lo <NA> 2017-08-01 12:16:04 link

3 10206265595900074 Chi Lo <NA> 2017-07-30 14:31:47 link

4 10206265595900074 Chi Lo <NA> 2017-07-29 10:32:04 photo

5 10206265595900074 Chi Lo <NA> 2017-07-25 14:29:23 link

6 10206265595900074 Chi Lo <NA> 2017-07-23 06:57:54 video

 link

1 https://www.facebook.com/imagineyourkorea/videos/1489320704461436/

2 https://docs.google.com/forms/d/e/1FAIpQLSfRTmibU7m6u26P7ZgluqAGMIuMAYkucb8YiLVgGqVf3Z4htg/viewform?usp=fb\_send\_fb

3 http://www.core-corner.com/Web/Main.php?stat=a\_Q8uRqdr

4 https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1935451630004070/?type=3

5 http://www.businessweekly.com.tw/article.aspx?id=20327&type=Blog&utm\_source=facebook.com&utm\_medium=social&utm\_content=bw&utm\_campaign=content

6 https://www.facebook.com/apple.realtimenews/videos/1267412880048582/

 id

1 10206265595900074\_10213305216326185

2 10206265595900074\_10213251831351594

3 10206265595900074\_10213236277402755

4 10206265595900074\_10213226337914274

5 10206265595900074\_10213187222136404

6 10206265595900074\_10213162726444027

 story likes\_count comments\_count

1 Chi Lo shared Imagine your Korea's video. 0 0

2 Chi Lo shared a link. 0 0

3 Chi Lo shared a link. 0 0

4 Chi Lo shared Moomin Cafe 嚕嚕米主題餐廳's photo. 11 0

5 Chi Lo shared 商業周刊（商周.com）'s post. 6 0

6 Chi Lo shared 蘋果日報即時新聞's video. 0 0

 shares\_count created\_Date created\_Hour

1 0 2017-08-07 16

2 0 2017-08-01 12

3 0 2017-07-30 14

4 0 2017-07-29 10

5 0 2017-07-25 14

6 0 2017-07-22 06

#儲存all\_post這個data frame到excel檔all\_post.csv

write.csv(all\_post,file="D:/chilo/all\_post.csv")

**第三步驟，開始畫圖**

#畫出每日按讚趨勢圖

#列出每日各種按讚數

like\_trend <- all\_post[,c(4,9,12)]

head(like\_trend)

 created\_time likes\_count created\_Date

1 2017-08-07 16:45:43 0 2017-08-07

2 2017-08-01 12:16:04 0 2017-08-01

3 2017-07-30 14:31:47 0 2017-07-30

4 2017-07-29 10:32:04 11 2017-07-29

5 2017-07-25 14:29:23 6 2017-07-25

6 2017-07-23 06:57:54 0 2017-07-22

> list(created\_Date=like\_trend$created\_Date)

$created\_Date

 [1] "2017-06-04" "2017-06-06" "2017-06-07" "2017-06-08" "2017-06-10" "2017-06-11"

 [7] "2017-06-16" "2017-06-20" "2017-06-23" "2017-06-24" "2017-06-28" "2017-07-01"

[13] "2017-07-02" "2017-07-07" "2017-07-09" "2017-07-16" "2017-07-17" "2017-07-20"

[19] "2017-07-21" "2017-07-22" "2017-07-25" "2017-07-29" "2017-07-30" "2017-08-01"

[25] "2017-08-07"

like\_trend <- aggregate(like\_trend[,2],by=list(like\_trend$created\_Date),FUN=sum)

head(like\_trend)

 Group.1 x

1 2017-06-04 102

2 2017-06-06 8

3 2017-06-07 64

4 2017-06-08 14

5 2017-06-10 1498

6 2017-06-11 258

#累加每日各種按讚數

like\_trend <- all\_post[,c(4,9,12)]

like\_trend <- aggregate(like\_trend[,2],by=list(created\_Date=like\_trend$created\_Date),FUN=sum)

head(like\_trend)

 created\_Date x

1 2017-06-04 102

2 2017-06-06 8

3 2017-06-07 64

4 2017-06-08 14

5 2017-06-10 1498

6 2017-06-11 258



#安裝與導入ggplot2套件

install.packages("ggplot2")

library(ggplot2)

#畫每日按讚數趨勢圖

ggplot(data=like\_trend, aes(x=created\_Date, y=x)) + #設定x軸y軸

 geom\_line(colour="#FF9999") + #先畫線顏色紅色

 geom\_point(colour="green") + #再畫點顏色綠色

 geom\_text(aes(label = x),size = 3.5) + #標出每個點的數字標籤

 ggtitle(paste("Likes Trend")) #設定圖的標題



#看每種貼文按讚數

like\_type <- all\_post[,c(5,9,12)]

like\_type <- aggregate(like\_type[,2],by=list(type=like\_type$type),FUN = sum )

like\_type

 type x

1 link 35

2 photo 2981

3 video 0

#畫出每種貼文按讚數圓餅圖

ggplot(like\_type) +

 geom\_bar(aes(x="", y=x, fill=type), stat = "identity") +

 coord\_polar("y", start=0)



#畫出每種貼文按讚百分比圓餅圖

slices <- like\_type$x #設定每個扇形的次數

lbls <- like\_type$type #設定每個扇形的標籤

pct <- round(slices/sum(slices)\*100) # 計算每扇形百分比

lbls <- paste(lbls, pct)

lbls <- paste(lbls,“%”,sep=“”) # 增加% 符號到標籤

pie(slices, labels = lbls, col=rainbow(length(lbls)),

 main="Pie Chart of Like type")



#其實要看平均數按讚數比較準

like\_type <- all\_post[,c(5,9,12)]

like\_type\_mean<- aggregate(like\_type[,2],by=list(type=like\_type$type),FUN = mean )

like\_type\_mean

 type x

1 link 4.37500

2 photo 22.93077

3 video 0.00000

第二階段\_畫自己FB按讚人文字雲

#把所有的post抓出來

#其中會有每則post的like的資料

# Apply a Function over a List or Vector

post\_total <- lapply(all\_post$id, function(x)

{

 post <- getPost(post = x, token = token)

 post

})

#看post\_total前9筆, 是list

post\_total[1:9]

[[1]]

[[1]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-08-07T08:45:43+0000 video

 link

1 https://www.facebook.com/imagineyourkorea/videos/1489320704461436/

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213305216326185 0 0 0

[[1]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[2]]

[[2]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-08-01T04:16:04+0000 link

 link

1 https://docs.google.com/forms/d/e/1FAIpQLSfRTmibU7m6u26P7ZgluqAGMIuMAYkucb8YiLVgGqVf3Z4htg/viewform?usp=fb\_send\_fb

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213251831351594 0 0 0

[[2]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[3]]

[[3]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-07-30T06:31:47+0000 link

 link

1 http://www.core-corner.com/Web/Main.php?stat=a\_Q8uRqdr

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213236277402755 0 0 0

[[3]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[4]]

[[4]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-07-29T02:32:04+0000 photo

 link

1 https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1935451630004070/?type=3

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213226337914274 11 0 0

[[4]]$likes

 from\_name from\_id

1 Yong Kenny Yong 1466001163724035

2 Young An Ho 100000014753551

3 駱詠潔 778781758864898

4 Chen Ju Tai 982608298444738

5 周凌漢 828802403808276

6 Hsiu-Yuan Wang 1088172214538724

7 楊竫如 719998624731792

8 林思瑜 128855354153906

9 陳孝慈 680769171992940

10 Chaoliang Chang 418242918335590

11 Pangfeng Liu 851818361500111

[[4]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[5]]

[[5]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-07-25T06:29:23+0000 link

 link

1 http://www.businessweekly.com.tw/article.aspx?id=20327&type=Blog&utm\_source=facebook.com&utm\_medium=social&utm\_content=bw&utm\_campaign=content

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213187222136404 6 0 0

[[5]]$likes

 from\_name from\_id

1 Melody Hsuan 622538331171900

2 楊立杰 814161478594650

3 Chen Ju Tai 982608298444738

4 Yahui Shih 10202324239101056

5 楊竫如 719998624731792

6 Chaoliang Chang 418242918335590

[[5]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[6]]

[[6]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-07-22T22:57:54+0000 video

 link

1 https://www.facebook.com/apple.realtimenews/videos/1267412880048582/

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213162726444027 0 0 0

[[6]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[7]]

[[7]]$post

 from\_id from\_name

1 10206265595900074 Chi Lo

 message

1 2017台灣美食展-台灣繽紛食代\n中華大學國際合作執行長-林冠文\n台北市議員-謝維洲\n2017台灣美食展代言人-白家綺\n俄羅斯籍女藝人-安妮（Annie)\n台灣名廚-阿基師\n三立女記者

 created\_time type

1 2017-07-21T13:00:59+0000 photo

 link

1 https://www.facebook.com/photo.php?fbid=10213147492183180&set=a.1263221501913.40582.1270986406&type=3

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213147558504838 76 2 0

[[7]]$likes

 from\_name from\_id

1 Carrie Sun 10204230866523716

2 Anthea Tong 4040510746878

3 劉思齊 856675424365047

4 吳菁正 778060425576628

5 Doris Wang 787233144662699

6 吳瑋琦 10204189038639203

7 Sean Chen 10203887897462933

8 Jungsywan Sepanski 770432146300548

9 陳堯鈴 815570771849800

10 Irene Lee 440936659379669

11 黃志森 1601595786771760

12 Cecilia Lin 767624793247611

13 Edwin Ho 10153981853302371

14 Caral Lj 671511856269740

15 Hsin-Pei Tang 877227412289161

16 慧<U+8F69> 854892814591544

17 Kun-Ming Yu 10204391963733164

18 范植航 1002259809793848

19 孫宗民 1011947985487459

20 Plan Hsieh 762366143782919

21 李主靈 864082273611958

22 Michael Lee 998160490202942

23 Chen HC 1175792239144548

24 Fung Hon Keong 10204566782722946

25 Ian Liao 894789797212324

26 Molly Lee 828646080483444

27 Lydia Hung 10152800689354832

28 Hongjia Hazel 503755223110711

29 Chaoliang Chang 418242918335590

30 張旭昇 1433601220302842

31 Wong RuiXuan 790765754328705

32 James Lin 811722478892006

33 鄭建成 734548433251614

34 Ruby Wei 942020982478527

35 Caster Wu 10203231349806772

36 Kj Feng 1584489085138395

37 李盛淵 570559229753017

38 洪士涵 802685416411403

39 吳澤易 710240655686079

40 Albert Tsai 971312652887759

41 Allen Lin 827152864115162

42 王子杰 622067004542446

43 幼稚媚 706708359393537

44 Meimei Chen 982264558455428

45 Kuan-Wen Eric Lin 10152325387343599

46 陳玉婷 1513301778923293

47 楊竫如 719998624731792

48 玄祿玄祿 959762907386826

49 Elaine Lai 1672938266264515

50 蔡靜萱 853243401356564

51 駱詠潔 778781758864898

52 Christina Gleitze 744937405592196

53 許丸子 1004315026250429

54 林瑞觀 295695900587554

55 Kevin Feng 698136280294698

56 賴佳君 897440003613313

57 Chen Ju Tai 982608298444738

58 Monokurobo Pig 979776188720190

59 路麗華 1560244604208227

60 Hsieh Nora 10153138397937074

61 Jessy Yong 1017976121604421

62 Chia-Yu Chen 1560621940850082

63 張馨文 10153460596926988

64 Cindy Ying 884328258272786

65 楊竣憲 259956254215011

66 Sam Lim 10152638623528742

67 周凌漢 828802403808276

68 楊立杰 814161478594650

69 林思瑜 128855354153906

70 林素慧 374835256026286

71 張大瑄 911101558904860

72 陳筱文 1050578741628330

73 Gerrard Chung 10203524286049696

74 陳孝慈 680769171992940

75 賴禹文 998371250191806

76 杜昀軒 726316907465000

[[7]]$comments

 from\_id from\_name

1 1125933594091400 Boee Liu

2 10152325387343599 Kuan-Wen Eric Lin

 message

1 林冠文我週一早上會去美食展喔

2 謝謝羅老師分享合照～ 後來我在六福的攤位上遇到莊豐如執行長了！跟她聊了一陣子，謝謝！

 created\_time likes\_count comments\_count

1 2017-07-21T13:40:09+0000 1 5

2 2017-07-21T15:18:33+0000 0 1

 id

1 10213147558504838\_10213147806951049

2 10213147558504838\_10213148493328208

[[8]]

[[8]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-07-21T04:07:38+0000 photo

 link

1 https://www.facebook.com/photo.php?fbid=10213144588030578&set=a.3836781879314.168058.1270986406&type=3

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213144588350586 0 0 0

[[8]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

[[9]]

[[9]]$post

 from\_id from\_name message created\_time type

1 10206265595900074 Chi Lo NA 2017-07-20T07:50:40+0000 video

 link

1 https://www.facebook.com/klun.hk/videos/724819537702093/

 id likes\_count comments\_count shares\_count

1 10206265595900074\_10213135256077285 0 0 0

[[9]]$comments

[1] from\_id from\_name message created\_time likes\_count

[6] comments\_count id

<0 rows> (or 0-length row.names)

#檢查維度, 1列10行的矩陣

dim(post\_total[[1]]$post)

[1] 1 10

post\_total[[1]]$post[1:3]

 from\_id from\_name message

1 10206265595900074 Chi Lo NA

#這裡只要like的資料, 要對list的裡的每個料做擷取

#先確定有幾個list

nrow(all\_post)

[1] 142

#第7個list有按讚的人名

post\_total[[7]]$likes[,1]

 [1] "Carrie Sun" "Anthea Tong" "劉思齊"

 [4] "吳菁正" "Doris Wang" "吳瑋琦"

 [7] "Sean Chen" "Jungsywan Sepanski" "陳堯鈴"

[10] "Irene Lee" "黃志森" "Cecilia Lin"

[13] "Edwin Ho" "Caral Lj" "Hsin-Pei Tang"

[16] "慧轩" "Kun-Ming Yu" "范植航"

[19] "孫宗民" "Plan Hsieh" "李主靈"

[22] "Michael Lee" "Chen HC" "Fung Hon Keong"

[25] "Ian Liao" "Molly Lee" "Lydia Hung"

[28] "Hongjia Hazel" "Chaoliang Chang" "張旭昇"

[31] "Wong RuiXuan" "James Lin" "鄭建成"

[34] "Ruby Wei" "Caster Wu" "Kj Feng"

[37] "李盛淵" "洪士涵" "吳澤易"

[40] "Albert Tsai" "Allen Lin" "王子杰"

[43] "幼稚媚" "Meimei Chen" "Kuan-Wen Eric Lin"

[46] "陳玉婷" "楊竫如" "玄祿玄祿"

[49] "Elaine Lai" "蔡靜萱" "駱詠潔"

[52] "Christina Gleitze" "許丸子" "林瑞觀"

[55] "Kevin Feng" "賴佳君" "Chen Ju Tai"

[58] "Monokurobo Pig" "路麗華" "Hsieh Nora"

[61] "Jessy Yong" "Chia-Yu Chen" "張馨文"

[64] "Cindy Ying" "楊竣憲" "Sam Lim"

[67] "周凌漢" "楊立杰" "林思瑜"

[70] "林素慧" "張大瑄" "陳筱文"

[73] "Gerrard Chung" "陳孝慈" "賴禹文"

[76] "杜昀軒"

all\_likes=NULL

post\_counts<-c(1:nrow(all\_post))

for (i in post\_counts)

{

 all\_likes <- c(all\_likes, post\_total[[i]]$likes[,1]) # all\_likes累積到第i-1個list, post\_total[[i]]$likes[,1]第i個list

}

# all\_likes的結構

str(all\_likes)

chr [1:3006] "Yong Kenny Yong" "Young An Ho" "駱詠潔" "Chen Ju Tai" "周凌漢" ...

#整理按讚排名

head(table(all\_likes))

all\_likes

 Đình Toàn บัวผัน คำแก่น ジャーン チイ ウエイ 叶玮隆

 1 1 2 1

 杨琪 钰程

 2 4

like\_rank<-as.data.frame(table(all\_likes)) #用table計算次數, 再轉為dataframe

like\_rank<-arrange(like\_rank, desc(Freq)) #用dplyr的arrange重新排序

head(like\_rank)

 all\_likes Freq

1 楊立杰 34

2 Chen Ju Tai 31

3 周凌漢 29

4 陳孝慈 29

5 Sam Lim 27

6 Chaoliang Chang 26

#以上是按讚前6名

#畫出按讚人名文字雲

install.packages("RColorBrewer")

install.packages("wordcloud")

library(RColorBrewer)

library(wordcloud)

par(family='Heiti TC Light') #因為有中文, 要設定字體

wordcloud(like\_rank$all\_likes, like\_rank$Freq, min.freq=20, scale=c(3,.8),

 rot.per=0, fixed.asp=FALSE,

 colors=brewer.pal(8, name="Set2"), random.color=TRUE)

 

wordcloud(like\_rank$all\_likes, like\_rank$Freq, min.freq=15, scale=c(3,.8),

 rot.per=0, fixed.asp=FALSE,

 colors=brewer.pal(8, name="Set2"), random.color=TRUE)

wordcloud(like\_rank$all\_likes, like\_rank$Freq, min.freq=10, scale=c(3,.8),

 rot.per=0, fixed.asp=FALSE,

 colors=brewer.pal(8, name="Set2"), random.color=TRUE)



第三階段\_畫任一FB粉絲團按讚人文字雲

#把粉絲團的專屬網址取代“me” ,並獲得粉絲團id

https://www.facebook.com/moomincafe.tw/?fields=id



#更新權杖

token <- " EAACEdEose0cBAFMTXUy1NQKhKy0ZAhG90yAjVdFvJ1PNLZCZAzf8Guc3sh9umZBDv9cuBzuZAqkflyWzhj2iIA2PQyuYEdBgeUTxHxkC1TSZCsDoet47uKjWZBxtEInDysugnGc5kDdt9N5DV2qfsWcN159araDbz2zC5NA3LuCvJgZCPmQGaNZAhOZC9TArMllGkZD"

#以Moomin Cafe 嚕嚕米主題餐廳為例，粉絲團的專屬網址https://www.facebook.com/moomincafe.tw/

#將id存起來

page.id<-"1780852262130675"

getPage

getPage retrieves information from a public Facebook page. Note that information about users that have turned on the "follow" option on their profile can also be retrieved with this function.

Usage

getPage(page, token, n = 25, since = NULL, until = NULL, feed = FALSE, reactions = FALSE, verbose = TRUE, api = NULL)

Arguments

page

A page ID or page name.

token

Either a temporary access token created at https://developers.facebook.com/tools/explorer or the OAuth token created with fbOAuth.

n

Number of posts of page to return. Note that number can be sometimes higher or lower, depending on status of API.

since

A UNIX timestamp or strtotime data value that points to the start of the time range to be searched. For more information on the accepted values, see: http://php.net/manual/en/function.strtotime.php

until

A UNIX timestamp or strtotime data value that points to the end of the time range to be searched. For more information on the accepted values, see: http://php.net/manual/en/function.strtotime.php

feed

If TRUE, the function will also return posts on the page that were made by others (not only the admin of the page).

reactions

If TRUE, will add variables to the data frame with the total count of reactions: love, haha, wow, sad, angry.

verbose

If TRUE, will report a number of the posts retrieved.

api

API version. e.g. "v2.8". NULL is the default.

Details

This function will only return information from public pages, not users with public profiles.

The since and until parameters are applied to the updated\_time field in the post objects, and not the created\_time. As a result, this function might return old posts that have been updated recently.

comments\_count refers to the total of comments, including nested comments (replies). It might be different from the total number of comments available through the API if some comments have been deleted.

See Also

getUsers, getPost, fbOAuth

Examples

## Not run: ------------------------------------

# ## See examples for fbOAuth to know how token was created.

# ## Getting information about Facebook's Facebook Page

# load("fb\_oauth")

# fb\_page <- getPage(page="facebook", token=fb\_oauth)

# ## Getting posts on Humans of New York page, including posts by others users

# ## (not only owner of page)

# page <- getPage(page="humansofnewyork", token=fb\_oauth, feed=TRUE)

# ## Getting posts on Humans of New York page in January 2013

# page <- getPage(page="humansofnewyork", token=fb\_oauth, n=1000, since='2013/01/01', until='2013/01/31')

## ---------------------------------------------

#接著就做跟剛剛一樣的動作，只是把my$id改成page.id

all\_post\_f<- getPage(page.id, token, '2017/06/01', until='2017/10/22', n=1000)

25 posts 50 posts 75 posts 100 posts 108 posts

#轉換時間格式

all\_post\_f$created\_time<-as.POSIXct(all\_post\_f$created\_time, format="%Y-%m-%dT%H:%M:%S%z")

head(all\_post\_f$created\_time)

[1] "2017-10-20 10:11:37 CST" "2017-10-19 16:50:48 CST" "2017-10-19 15:00:01 CST"

[4] "2017-10-18 10:39:35 CST" "2017-10-17 15:00:00 CST" "2017-10-16 17:51:40 CST"

#若要看月的趨勢

#這時你需要這個套件，R的時間套件好幫手

install.packages("lubridate")

library(lubridate)

#新增月份欄

all\_post\_f$created\_month<- substr(all\_post\_f$created\_time, 6,7)

#檢視all\_post\_f的資料結構

str(all\_post\_f)

'data.frame': 108 obs. of 12 variables:

 $ from\_id : chr "1780852262130675" "1780852262130675" "1780852262130675" "1780852262130675" ...

 $ from\_name : chr "Moomin Cafe 嚕嚕米主題餐廳" "Moomin Cafe 嚕嚕米主題餐廳" "Moomin Cafe 嚕嚕米主題餐廳" "Moomin Cafe 嚕嚕米主題餐廳" ...

 $ message : chr "<U+2728><U+2728>大家看過來<U+2728><U+2728> \n#MOOMIN嚕嚕米懂你心生活集點活動 #直播\nMoomin Cafe 主廚的Cooki"| \_\_truncated\_\_ "#直播預告 #MOOMIN嚕嚕米懂你心生活集點活動\n各位粉絲朋友有關注嚕嚕米主題餐廳和屈臣氏攜手合作的「MOOMIN嚕嚕米懂你"| \_\_truncated\_\_ "#嚕嚕米主題餐廳AUTUMN SPECIAL MENU開跑 　#秋天限定 ＃晚餐供應\n接下來是晚餐MENU介紹唷<ed><U+00A0><U+00BD><ed><U"| \_\_truncated\_\_ "#嚕嚕米主題餐廳AUTUMN SPECIAL MENU今日起開跑 　#秋天限定　 ＃限量款登場\n<U+2728>萬聖節限定．限量款<U+2728>\n最"| \_\_truncated\_\_ ...

 $ created\_time : POSIXct, format: "2017-10-20 10:11:37" "2017-10-19 16:50:48" ...

 $ type : chr "video" "photo" "photo" "photo" ...

 $ link : chr "https://www.facebook.com/wtctw/videos/1502631273168872/" "https://www.facebook.com/wtctw/photos/a.132537180178295.24318.131307770301236/1498828803549119/?type=3" "https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1970601253155774/?type=3" "https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1970601459822420/?type=3" ...

 $ id : chr "1780852262130675\_1971656316383601" "1780852262130675\_1971344276414805" "1780852262130675\_1970601316489101" "1780852262130675\_1970601459822420" ...

 $ story : chr "Moomin Cafe 嚕嚕米主題餐廳 shared 屈臣氏 Watsons Taiwan's live video." "Moomin Cafe 嚕嚕米主題餐廳 shared 屈臣氏 Watsons Taiwan's post." "Moomin Cafe 嚕嚕米主題餐廳 added 2 new photos." NA ...

 $ likes\_count : num 135 71 317 633 216 534 80 50 411 193 ...

 $ comments\_count: num 7 2 21 71 7 42 2 0 12 1 ...

 $ shares\_count : num 0 0 12 26 5 27 1 1 1 3 ...

 $ created\_month : chr "10" "10" "10" "10" ...

#開啟一個電子表格瀏覽像矩陣型式的R物件

View(all\_post\_f)



#印出all\_post\_f這個data frame 的第一部分(前6筆)

head(all\_post\_f)

 from\_id from\_name

1 1780852262130675 Moomin Cafe 嚕嚕米主題餐廳

2 1780852262130675 Moomin Cafe 嚕嚕米主題餐廳

3 1780852262130675 Moomin Cafe 嚕嚕米主題餐廳

4 1780852262130675 Moomin Cafe 嚕嚕米主題餐廳

5 1780852262130675 Moomin Cafe 嚕嚕米主題餐廳

6 1780852262130675 Moomin Cafe 嚕嚕米主題餐廳

 message

1 <U+2728><U+2728>大家看過來<U+2728><U+2728> \n#MOOMIN嚕嚕米懂你心生活集點活動 #直播\nMoomin Cafe 主廚的Cooking Show開始囉\n快和嚕編一起觀看直播吧！<ed><U+00A0><U+00BD><ed><U+00B3><U+00A2>\n傳送門在此： https://www.facebook.com/wtctw/videos/1502631273168872/\n.\n#歡迎大家留言分享最想要哪款 #喜歡就分享

2 #直播預告 #MOOMIN嚕嚕米懂你心生活集點活動\n各位粉絲朋友有關注嚕嚕米主題餐廳和屈臣氏攜手合作的「MOOMIN嚕嚕米懂你心生活」集點活動嗎？<U+2728>\n今天嚕編要來預告↓\n明天！也就是10/20的早上10:00-11:00，\n將有Moomin Cafe主廚 Cooking Show的直播<ed><U+00A0><U+00BC><ed><U+00BD><U+00B4>\n.\n神秘的主廚將和大家示範如何做出可愛又好吃的餐點 \n而且用的都是這次集點兌換活動的嚕嚕咪周邊商品<ed><U+00A0><U+00BD><ed><U+00B8><U+008A>\n.\n參加留言互動還有機會得到嚕嚕米懂你心生活商品哦！\n屆時嚕編也會在此提供影片連結給各位粉絲朋友們，有問題就趕快留言問主廚吧！\n嚕編溫馨提醒，記得請按下「搶先看」設定和開啟直播通知，以免錯過可以和主廚互動的時間～\n.\n#MOOMIN嚕嚕米懂你心生活集點活動\n#大家最想兌換哪1款呢？ #嚕編每一個都好想要\n#請大家密切關注MoominCafe官方粉絲團

3 #嚕嚕米主題餐廳AUTUMN SPECIAL MENU開跑 　#秋天限定 ＃晚餐供應\n接下來是晚餐MENU介紹唷<ed><U+00A0><U+00BD><ed><U+00B8><U+008B>\n或許有些粉絲已經吃到了呢～\n10/18開始，嚕嚕米主題餐廳AUTUMN SPECIAL DINNER MENU開跑！\n晚餐新增的限定餐點：\n〔大耳的套餐〕、 〔蜜製松阪豬燉飯〕、 〔地中海海鮮燉飯〕、 \n〔巴薩米克酒醋佐酥烤雞排〕 、 〔葡萄佐萊姆起司奶油蛋糕捲〕<ed><U+00A0><U+00BD><ed><U+00B8><U+008B>\n<ed><U+00A0><U+00BD><ed><U+00B4><U+00B8>大耳的套餐～甘甜的醬油拌飯，可以選牛肉燴飯or日式咖哩(微辣)搭配\n.\n快來找嚕嚕米家族吃飯吧<ed><U+00A0><U+00BD><ed><U+00B2><U+008E>\n.\n線上訂位傳送門：https://goo.gl/1nFqyb\n#24小時都能線上訂位唷 #最早開放一個月前的訂位\n#來不及訂位的話MoominCafe都還會保留四到五成的位子給現場的粉絲唷

4 #嚕嚕米主題餐廳AUTUMN SPECIAL MENU今日起開跑 　#秋天限定　 ＃限量款登場\n<U+2728>萬聖節限定．限量款<U+2728>\n最能胡亂嬉鬧的萬聖節即將到來，粉絲們準備好Trick or Treat 了嗎？\n即日(10/18)起至10/31，限量販售〔嚕嚕米布丁瓶〕<ed><U+00A0><U+00BD><ed><U+00B8><U+008B>\n有原味跟南瓜口味共2種，\n每日限定30個(原味20個、南瓜10個)\n.\n很棒的還有：吃完之後可以把可愛的玻璃瓶帶回家唷<ed><U+00A0><U+00BD><ed><U+00B2><U+0096>\n.\n.\n線上訂位傳送門：https://goo.gl/1nFqyb\n#24小時都能線上訂位唷 #最早開放一個月前的訂位\n#若想知道當天限量款數量狀況可以撥打店內電話詢問

5 #嚕嚕米主題餐廳AUTUMN SPECIAL MENU開跑 　#秋天限定 ＃下午茶供應\n親愛的嚕迷嚕粉嚕蛋米粉粉絲朋友們，期待秋季限定特別餐點呢？\n繼午餐篇後，接著就是下午茶啦～<ed><U+00A0><U+00BD><ed><U+00B2><U+009E>\n一樣是10/18開始，嚕嚕米主題餐廳AUTUMN SPECIAL TEA TIME MENU開跑！\n\n下午茶新提供MENU的部分如下：\n〔今日的焗烤土司〕 、 〔葡萄佐萊姆起司奶油蛋糕捲〕<ed><U+00A0><U+00BD><ed><U+00B8><U+008B>\n今日的焗烤土司　可以選塔塔醬焗烤煙燻鮭魚鹹吐司 or蕃茄紅醬焗烤培根鹹吐司2選1\n快來攻略新MENU吧<ed><U+00A0><U+00BD><ed><U+00B3><U+00A3>\n\n這兩款餐點在午餐跟下午茶時段都吃的到唷\n快來嚕嚕米主題餐廳坐坐聊天吧<ed><U+00A0><U+00BD><ed><U+00B2><U+0095>\n\n線上訂位傳送門：https://goo.gl/1nFqyb\n#24小時都能線上訂位唷 #最早開放一個月前的訂位\n#秋季限定菜單還有續篇敬請鎖定粉絲團po文

6 #嚕嚕米主題餐廳AUTUMN SPECIAL MENU開跑 　#限定餐點\n＃餐點介紹系列　＃午餐供應\n食慾之秋～嚕嚕米主題餐廳也添加了秋天的氣息唷<ed><U+00A0><U+00BC><ed><U+00BD><U+0081>\n10/18開始，嚕嚕米主題餐廳AUTUMN SPECIAL MENU開跑！\n午餐、下午茶、晚餐都會有新的餐點登場哦～快來嘗嘗看吧<ed><U+00A0><U+00BC><ed><U+00BD><U+00B4>\n.\n首先介紹午餐新增的限定餐點：\n〔大耳的套餐〕、 〔蜜製松阪豬燉飯〕、 〔地中海海鮮燉飯〕、 \n〔今日的焗烤土司〕 、 〔葡萄佐萊姆起司奶油蛋糕捲〕<ed><U+00A0><U+00BD><ed><U+00B8><U+008B>\n<ed><U+00A0><U+00BD><ed><U+00B4><U+00B8>大耳的套餐～甘甜的醬油拌飯，可以選牛肉燴飯or日式咖哩(微辣)搭配\n<ed><U+00A0><U+00BD><ed><U+00B4><U+00B8>今日的焗烤土司～可以選塔塔醬焗烤煙燻鮭魚鹹吐司or蕃茄紅醬焗烤培根鹹吐司2選1\n快來攻略新MENU吧\n\n#點擊立刻預訂按鈕 #24小時都能線上訂位唷

 created\_time type

1 2017-10-20 10:11:37 video

2 2017-10-19 16:50:48 photo

3 2017-10-19 15:00:01 photo

4 2017-10-18 10:39:35 photo

5 2017-10-17 15:00:00 photo

6 2017-10-16 17:51:40 photo

 link

1 https://www.facebook.com/wtctw/videos/1502631273168872/

2 https://www.facebook.com/wtctw/photos/a.132537180178295.24318.131307770301236/1498828803549119/?type=3

3 https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1970601253155774/?type=3

4 https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1970601459822420/?type=3

5 https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1970489966500236/?type=3

6 https://www.facebook.com/moomincafe.tw/photos/a.1892982600917640.1073741828.1780852262130675/1970197979862768/?type=3

 id

1 1780852262130675\_1971656316383601

2 1780852262130675\_1971344276414805

3 1780852262130675\_1970601316489101

4 1780852262130675\_1970601459822420

5 1780852262130675\_1970489989833567

6 1780852262130675\_1970189956530237

 story likes\_count

1 Moomin Cafe 嚕嚕米主題餐廳 shared 屈臣氏 Watsons Taiwan's live video. 135

2 Moomin Cafe 嚕嚕米主題餐廳 shared 屈臣氏 Watsons Taiwan's post. 71

3 Moomin Cafe 嚕嚕米主題餐廳 added 2 new photos. 317

4 <NA> 633

5 <NA> 216

6 Moomin Cafe 嚕嚕米主題餐廳 added 2 new photos. 534

 comments\_count shares\_count created\_month

1 7 0 10

2 2 0 10

3 21 12 10

4 71 26 10

5 7 5 10

6 42 27 10

#儲存all\_post\_f這個data frame到excel檔all\_post\_f.csv

write.csv(all\_post\_f,file="D:/chilo/all\_post\_f.csv")

#累加每月各種按讚數

like\_trend\_f <- all\_post\_f[,c(4,9,12)]

like\_trend\_f <- aggregate(like\_trend\_f[,2],by=list(created\_month=like\_trend\_f$created\_month), FUN=sum)

head(like\_trend\_f)

 created\_month x

1 06 12177

2 07 17660

3 08 6552

4 09 3544

5 10 3760

#改變created\_month變數類型為數值

like\_trend\_f$month<-as.numeric(like\_trend\_f$created\_month)

#畫每月按讚數趨勢圖

ggplot(data=like\_trend\_f, aes(x= month, y=x)) + #設定x軸y軸

 geom\_line(colour="#FF9999") + #先畫線，要紅色

 geom\_point(colour="green") + #再畫點，要綠色

 geom\_text(aes(label = x),size = 3.5) + #想要標出每個點的數字

 ggtitle(paste("Likes Trend")) #設定圖片標題



#畫長條圖

ggplot(like\_trend\_f, aes(x=month, y=x)) + #設定X軸Y軸

 geom\_line(colour="#009E73") + #線的圖層

 geom\_bar(stat = "identity", fill = "#E69F00") #長條圖的圖層



#這裡有些顏色可以玩

c("#999999", "#E69F00", "#56B4E9", "#009E73", "#F0E442", "#0072B2", "#D55E00", "#CC79A7")

#FB粉絲團按讚人文字雲

#把所有的post抓出來

#其中會有每則post的like的資料

接著我們要來認識facebook Graph API 先來[這裡](https://developers.facebook.com/tools/explorer)獲得權限

<https://developers.facebook.com/tools/explorer>

post\_total\_f <- lapply(all\_post\_f$id, function(x)

{

 post <- getPost(post = x, token = token)

 post

})

all\_likes\_f=NULL

post\_counts\_f<-c(1:nrow(all\_post\_f))

for (i in post\_counts\_f)

{

 all\_likes\_f <- c(all\_likes\_f,post\_total\_f[[i]]$likes[,1]) # all\_likes\_f累積到第i-1個list, post\_total\_f[[i]]$likes[,1]第i個list

}

#整理按讚排名

like\_rank\_f<-as.data.frame(table(all\_likes\_f)) #用table計算次數, 再轉為dataframe

like\_rank\_f<-arrange(like\_rank\_f,desc(Freq)) #用dplyr的arrange重新排序

#列出按讚前6名

head(like\_rank\_f)

 all\_likes\_f Freq

1 魏嘉誼 94

2 Ellen Chen 72

3 張郁婕 71

4 野蝴蝶 71

5 楊羽庭 69

6 黃品凡 65

#畫出按讚人名文字雲

library(RColorBrewer)

library(wordcloud)

par(family='Heiti TC Light') #因為有中文, 要設定字體

wordcloud(like\_rank\_f$all\_likes, like\_rank\_f$Freq, min.freq=20, scale=c(3,.8),

 rot.per=0, fixed.asp=FALSE,

 colors=brewer.pal(8, name="Set2"), random.color=TRUE)

