General Statistics of Introductory Preprocessing Steps

```
## number of politicians in parliament: 183
## number of politicians with twitter account: 82 (44.81 %)
## number of verified twitter accounts: 8 (10.26 %)
## number of parties exceeding one percent in parliament: 5 (99.45 % of seats)
## number of corresponding twitter accounts in dataset : 78 (42.62 % of seats)
## most of the following statistics are based on twitter accounts and parties
    that exceed the one percent election threshold in parliament!
## parties that are not considered:
## [1] "OK"
                       Min. 1st Qu. Median
                                           Mean 3rd Qu.
                                                         Max.
## followers (incl. friends)
                        26 510.25 1778.00 5694.5897 4696.25 88795.00
                                 441.50 550.7436
## friends
                         0
                           156.50
                                                814.25
                                                       2032.00
## percent friends
                         0
                            11.75
                                   27.46
                                         28.9500
                                                 42.05
                                                        84.58
## number of followers stratified by party: see below for plot
## table of parties:
##
       ges twitter percent
## FPÖ
        30
              10
                  33.33
## GRÜNE 26
              17
                  65.38
## NEOS
       15
              13
                  86.67
## ÖVP
       71
              18
                  25.35
## SPÖ
              24
                  60.00
## number of unique tweets downloaded: 111324
  - filter to those that are considered: 111324 (100 %)
  - number of retweets: 32095 (28.83 %)
  - number of quotes: 7300 (6.56 %)
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
       Min. 1st Qu. Median
                        Mean 3rd Qu.
                                     Max.
## FPÖ
         0
               0
                     1 57.65
                                    95256
## GRÜNE
         0
               0
                     1 544.50
                                 8 1575166
## NEOS
         0
               0
                     1 87.54
                                10
                                  361694
## ÖVP
         0
               0
                     0 73.59
                                 2 194763
## SPÖ
                                 6 118615
                     1 42.60
```

```
## number of favorites stratified by party:
##
       Min. 1st Qu. Median Mean 3rd Qu. Max.
## FPÖ
         0
                0
                     0 5.08
                                 2 1995
## GRÜNE
         0
                0
                     1 11.78
                                 5 5099
## NEOS
         0
                0
                     0 14.48
                                 5 3139
## ÖVP
                     0 1.59
         0
                0
                                 1 296
                                14 2700
## SPÖ
         0
                0
                     3 28.34
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 26506 (23.81 %)
## number of links in tweets: 27091
## number of unique links in tweets (before expanding): 25263
## number of successful requests (status_code == 200): 23693 (93.79 %)
## number of successful expanded links (expanded URL != NA): 24851 (98.37 %)
## number of unique links in tweets (after expanding): 23982
## number of unique links in tweets (after expanding and replacement of NAs): 24393
## number of unique url_cores: 1291
## top ten of url_cores:
##
##
     twitter
              facebook derstandard
                                      orf
                                                ots
                                                     diepresse
##
        8863
                 3382
                           1754
                                     1406
                                               1255
                                                         853
##
      kurier
               youtube
                           krone
                                 instagram
                  586
##
         741
                            469
                                      454
## number of scraped unique URLs: 5377 (22.04 %)
   - successful: 3231 (60.09 %)
## table of scraped types of content:
##
             ges successful percent
## article
             3301
                     3231
                           97.88
## discussion
               5
                        0
                            0.00
## event
             475
                        0
                            0.00
## image
             326
                        0
                            0.00
## organization 125
                        0
                            0.00
## other
             541
                        0
                            0.00
## product
               4
                            0.00
## profile
               8
                        0
                            0.00
                            0.00
## video
             136
## number of politicians in parliament: 200
## number of politicians with twitter account: 147 (73.5 %)
## number of verified twitter accounts: 22 (15.28 %)
```

```
## number of parties exceeding one percent in parliament: 8 (96 % of seats)
## number of corresponding twitter accounts in dataset : 140 (70 % of seats)
## most of the following statistics are based on twitter accounts and parties
    that exceed the one percent election threshold in parliament!
## parties that are not considered:
                                                                 "T.DP"
## [1] "FDP.ALT"
                      "BastA"
                                    "UDC"
                                                   "PDA"
## [6] "EDU"
                      "solidaritéS" "Lega"
                                                   "ALG"
##
                               Min. 1st Qu.
                                             Median
                                                          Mean 3rd Qu.
                                                                            Max.
## followers (incl. friends) 43.00
                                     907.50 1895.50 3911.3214 4285.50 52522.00
## friends
                               4.00
                                     197.50 388.00 649.8143
                                                               833.50
                                                                        4667.00
## percent friends
                               0.51
                                      12.95
                                              22.71
                                                       23,4900
                                                                 31.03
                                                                           62.51
## number of followers stratified by party: see below for plot
## table of parties:
##
       ges twitter percent
## BDP
         3
                 3 100.00
## CVP
                19
                     79.17
        24
## EVP
         3
                 2
                     66.67
## FDP
                     68.97
        29
                20
## GLP
        16
                14
                     87.50
## GPS
        26
                23
                     88.46
## SP
        39
                32
                     82.05
## SVP 52
                30
                     57.69
## number of unique tweets downloaded: 175051
  - filter to those that are considered: 169507 (96.83 %)
## - number of retweets: 68436 (40.37 %)
  - number of quotes: 10457 (6.17 %)
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
       Min. 1st Qu. Median
                              Mean 3rd Qu.
                                              Max.
## BDP
          0
                  1
                         3 112.99
                                         7
                                             93235
## CVP
          0
                  0
                         1
                            43.48
                                         4
                                            138492
## EVP
                  0
                         1
                              2.74
                                         3
                                               127
          0
## FDP
                  0
                         1 118.17
                                         4 1575003
          0
## GLP
                  0
                         2 120.22
                                         7 312592
          0
## GPS
                  0
                         2 198.32
                                         7 1575003
          0
## SP
          0
                  0
                         2 188.18
                                         6 842128
## SVP
                  0
                                            287237
          0
                         1 59.91
## number of favorites stratified by party:
##
       Min. 1st Qu. Median Mean 3rd Qu. Max.
## BDP
                            4.04
                                          548
          0
                  0
                         0
## CVP
          0
                  0
                         0 4.42
                                        3 1623
## EVP
                         0 2.79
          0
                  0
                                        3
                                            65
## FDP
                  0
                         0 4.73
                                        3
                                           462
          0
                                        2
## GLP
          0
                  0
                         0 3.79
                                           480
## GPS
          0
                  0
                         0 4.11
                                        2
                                           604
```

0 6.90

0

SP

```
## SVP
                    1 24.55
                                5 4857
              0
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 62616 (35.77 %)
## number of links in tweets: 64628
## number of unique links in tweets (before expanding): 58954
## number of successful requests (status_code == 200): 52284 (88.69 %)
## number of successful expanded links (expanded URL != NA): 57474 (97.49 %)
## number of unique links in tweets (after expanding): 55181
## number of unique links in tweets (after expanding and replacement of NAs): 56659
## number of unique url_cores: 3759
## top ten of url_cores:
##
##
         twitter
                     facebook
                              tagesanzeiger
                                                   nzz
                                                               blick
##
          12784
                        3659
                                                   2903
                                                                2181
                                      3391
##
            srf
                 lorenzoquadri aargauerzeitung
                                               parlament
                                                             youtube
##
           1620
                        1609
                                                                1312
                                      1600
                                                   1455
## number of scraped unique URLs: 10408 (18.37 %)
  - successful: 6325 (60.77 %)
## table of scraped types of content:
##
             ges successful percent
## article
             7229
                      6325
                           87.49
## discussion
               5
                            0.00
                        0
## event
                            0.00
             377
                        0
## image
              58
                        0
                            0.00
                            0.00
## organization 519
                        0
                            0.00
## other
              971
                        0
## product
               5
                        0
                            0.00
## profile
              20
                            0.00
                        0
                            0.00
## video
             232
## number of politicians in parliament: 180
## number of politicians with twitter account: 165 (91.67 %)
## number of verified twitter accounts: 48 (42.86 %)
## number of parties exceeding one percent in parliament: 10 (97.22 % of seats)
## number of corresponding twitter accounts in dataset : 108 (60 % of seats)
## most of the following statistics are based on twitter accounts and parties
    that exceed the one percent election threshold in parliament!
## parties that are not considered:
```

```
## [1] "IA" "SIU" "SP" "JF" "ALT"
                              Min. 1st Qu. Median
                                                         Mean 3rd Qu.
## followers (incl. friends) 24.00 1926.50 3857.50 9924.8981 7993.00 188836.00
                              5.00 279.50 529.00 749.7037 958.50
## friends
## percent friends
                              0.09
                                       5.29
                                              13.39
                                                      17.8500
## number of followers stratified by party: see below for plot
## table of parties:
       ges twitter percent
##
## DF
        16
                16 100.00
## EL
        13
                     84.62
                11
## KF
        13
                13 100.00
## LA
        3
                 2
                     66.67
## NB
         4
                    100.00
## RV
                16 100.00
        16
## S
        49
                42
                     85.71
## SF
                13
                     92.86
        14
## UFG
        5
                 5 100.00
## V
        42
                39
                     92.86
## number of unique tweets downloaded: 178732
## - filter to those that are considered: 174188 (97.46 \%)
## - number of retweets: 56150 (32.24 %)
## - number of quotes: 9934 (5.7 %)
## - number of tweets per day: see below for plot
## number of retweets stratified by party:
       Min. 1st Qu. Median
##
                             Mean 3rd Qu.
                                              Max.
                                            222179
## DF
          0
                  0
                         2 123.90
                                         6
## EL
          0
                  0
                         2 21.87
                                         7
                                             39206
## KF
                             4.54
                                              3966
                  0
                         1
                                         4
## LA
                  0
                         2 34.76
                                         6
                                             76389
          0
## NB
          0
                  0
                         0
                             0.58
                                         0
                                                13
## RV
          0
                  0
                         1 51.62
                                         5 353617
## S
          0
                  0
                         2 152.53
                                         6 1575004
## SF
          0
                  0
                         2 127.36
                                         8 351223
## UFG
                         2 275.27
          0
                  0
                                         7 824773
## V
                  0
                         2 84.24
                                         8 372070
          0
## number of favorites stratified by party:
##
       Min. 1st Qu. Median Mean 3rd Qu. Max.
## DF
                         0 7.22
                                        4
                                            549
          0
                  0
## EL
          0
                  0
                         1 10.89
                                        7
                                            776
## KF
                         4 17.13
                                       15
                                            766
          0
                  1
                         0 14.68
                                           1124
## LA
          0
                  0
                                        4
## NB
                  0
                         0 2.37
                                        2
                                             86
          0
## R.V
          0
                  0
                         1 15.53
                                        8 1602
## S
                         0 6.10
                                        3 2062
          0
                  0
## SF
                  0
                         0 10.20
                                        5 1337
          0
## UFG
                         0 25.01
                                        7 5209
          0
                  0
## V
          0
                  0
                         1 19.01
                                        9 10861
```

Max.

4575.00

79.17

27.27

```
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 45889 (25.67 %)
## number of links in tweets: 46560
## number of unique links in tweets (before expanding): 41963
## number of successful requests (status code == 200): 37543 (89.47 %)
## number of successful expanded links (expanded URL != NA): 40990 (97.68 %)
## number of unique links in tweets (after expanding): 39762
## number of unique links in tweets (after expanding and replacement of NAs): 40731
## number of unique url_cores: 1597
## top ten of url_cores:
##
##
                     facebook
                                              berlingske
                                                           politiken
        twitter
                                       dr
##
          11681
                        4717
                                     3535
                                                  2479
                                                                2362
                                                          information
##
  jyllands-posten
                         tv2
                                  altinget
                                                    bt.
##
           2063
                        1746
                                     1398
                                                   856
                                                                811
## number of scraped unique URLs: 10987 (26.97 %)
  - successful: 8748 (79.62 %)
## table of scraped types of content:
##
             ges successful percent
             8855
                      8748
                           98.79
## article
                            0.00
## discussion
             177
                        0
                            0.00
## event
             386
                        0
## image
              30
                        0
                            0.00
## organization
             275
                        0
                            0.00
## other
              389
                        0
                            0.00
                            0.00
## product
              12
## profile
              17
                            0.00
                        0
## video
              105
                            0.00
## number of politicians in parliament: 349
## number of politicians with twitter account: 315 (90.26 %)
## number of verified twitter accounts: 202 (64.54 %)
## number of parties exceeding one percent in parliament: 13 (91.4 % of seats)
## number of corresponding twitter accounts in dataset : 284 (81.38 % of seats)
## most of the following statistics are based on twitter accounts and parties
    that exceed the one percent election threshold in parliament!
## parties that are not considered:
```

```
"IU"
                                             "ECP"
                                                                "MÁS PAÍS-EQUO"
    [1] "PSE-EE-PSOE"
##
    [5] "EM-P-A-EU"
                           "CUP-PR"
                                             "CDC"
                                                                "UPN"
                           "PRC"
                                                                "NC"
   [9] "PSdG-PSOE"
                                             "PP-FORO"
## [13] "NA+"
                           "Independent"
                                             "FORO"
                                                                "CCa-PNC"
## [17] "C-P-EUPV"
                           "BNG"
                                             "AMAIUR"
                                                                ";Teruel Existe!"
##
                                                           Mean 3rd Qu.
                                Min. 1st Qu. Median
## followers (incl. friends) 151.00 2495.50 5903.50 40389.697 12720.75 2591572.00
                                3.00 502.50 1021.50 2040.951 2067.75
## friends
                                                                            98388.00
## percent friends
                                0.12
                                        7.79
                                                22.02
                                                         24.140
                                                                   37.44
                                                                               76.18
## number of followers stratified by party: see below for plot
## table of parties:
##
                       ges twitter percent
## Cs
                                  7
                                      77.78
## EAJ-PNV
                          6
                                      66.67
                                  4
## ECP-GUAYEM EL CANVI
                                     100.00
                          4
                          4
## EH Bildu
                                  3
                                      75.00
## ERC-CATSÍ
                          4
                                     100.00
## ERC-S
                          9
                                  9
                                     100.00
## JxCat-JUNTS
                         5
                                  5
                                     100.00
## PP
                        87
                                      87.36
                                 76
## PSC-PSOE
                        12
                                 12
                                     100.00
## PsdeG-PSOE
                         8
                                  6
                                      75.00
## PSOE
                         96
                                 88
                                      91.67
## UP
                         23
                                 21
                                      91.30
## VOX
                        52
                                 47
                                      90.38
## number of unique tweets downloaded: 820658
  - filter to those that are considered: 739245 (90.08 %)
  - number of retweets: 497908 (67.33 %)
##
  - number of quotes: 35242 (4.77 %)
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
                       Min. 1st Qu. Median
                                               Mean 3rd Qu.
                                                                Max.
## Cs
                           0
                                  10
                                         46
                                             386.78
                                                         208
                                                             687411
## EAJ-PNV
                           0
                                   3
                                          8
                                             113.02
                                                          17
                                                               68435
## ECP-GUAYEM EL CANVI
                           0
                                   9
                                         26 575.29
                                                         106
                                                             147737
## EH Bildu
                           0
                                         30 186.51
                                  14
                                                          75
                                                               54780
## ERC-CATSÍ
                           0
                                   8
                                         29 530.12
                                                         156 120843
## ERC-S
                                   6
                           0
                                         21
                                             550.39
                                                         107
                                                             415419
## JxCat-JUNTS
                           0
                                   3
                                         12 436.04
                                                          84 485568
## PP
                           0
                                             328.63
                                                              348599
                                   4
                                         19
                                                         142
## PSC-PSOE
                                         25
                           0
                                   6
                                             284.68
                                                         118
                                                              405933
## PsdeG-PSOE
                           0
                                   0
                                          9
                                             177.08
                                                          78
                                                               92608
## PSOE
                           0
                                   4
                                         20 284.56
                                                         129 1575168
                                                         466 851131
## UP
                           0
                                  13
                                         73 733.69
## VOX
                           0
                                  15
                                        231 1113.72
                                                        1250
                                                              334992
## number of favorites stratified by party:
##
                       Min. 1st Qu. Median
                                             Mean 3rd Qu.
                                                              Max.
```

0 46.21

4 14894

0

0

Cs

```
## EAJ-PNV
                                    0.57
                           0
                                                  324
## ECP-GUAYEM EL CANVI
                           0
                                   38.40
                                               16751
                                             7
                                               33190
## EH Bildu
                     0
                           0
                                   37.02
## ERC-CATSÍ
                     0
                           0
                                 0 213.25
                                             0 83612
## ERC-S
                     0
                           0
                                   21.12
                                                 8895
## JxCat-JUNTS
                     0
                           0
                                   19.39
                                              Ω
                                               16383
## PP
                     0
                           0
                                   43.76
                                             2 59541
                                 0 56.59
                           0
                                             6 13462
## PSC-PSOE
                     0
## PsdeG-PSOE
                     0
                           0
                                    2.11
                                                 1391
## PSOE
                     0
                           Λ
                                 0 33.90
                                             0
                                               75035
## UP
                     0
                           0
                                 0 322.99
                                             21 159399
## VOX
                     0
                           0
                                 0 162.69
                                               54161
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 137820 (16.79 %)
## number of links in tweets: 139330
## number of unique links in tweets (before expanding): 120039
## number of successful requests (status_code == 200): 113044 (94.17 %)
## number of successful expanded links (expanded URL != NA): 117116 (97.56 %)
## number of unique links in tweets (after expanding): 114020
## number of unique links in tweets (after expanding and replacement of NAs): 116941
## number of unique url cores: 4477
## top ten of url_cores:
##
##
      twitter
                           voutube
                                     facebook
                                                eldiario
                                                               abc
                  elpais
                                                              3909
##
        47539
                   6224
                                         5004
                                                   4185
                              5012
      elmundo lavanguardia
##
                           okdiario
                                   europapress
##
        3631
                   1810
                              1802
                                         1786
## number of scraped unique URLs: 37739 (32.27 %)
   - successful: 30016 (79.54 %)
## table of scraped types of content:
##
              ges successful percent
## article
             32600
                      30016
                            92.07
                             0.00
## discussion
                7
                         0
## event
              236
                         0
                             0.00
## image
              263
                         0
                             0.00
## organization
              302
                         0
                             0.00
              1750
## other
                         0
                             0.00
## product
                7
                         0
                             0.00
## profile
               28
                         0
                             0.00
## video
              536
                             0.00
```

```
## number of politicians in parliament: 577
## number of politicians with twitter account: 551 (95.49 %)
## number of verified twitter accounts: 441 (81.22 %)
## number of parties exceeding one percent in parliament: 10 (93.76 % of seats)
## number of corresponding twitter accounts in dataset : 511 (88.56 % of seats)
## most of the following statistics are based on twitter accounts and parties
     that exceed the one percent election threshold in parliament!
## parties that are not considered:
                                                                "LC"
    [1] "MR"
                                             "DVD"
##
                           "Cap21"
##
    [5] "AC"
                           "Ensemble!"
                                             "PaCs"
                                                                "DLF"
   [9] "Génération.s"
                           "Independent"
                                             "JSFee"
                                                                "LP"
## [13] "LS"
                           "MdP"
                                             "MIM"
                                                                "MRC"
        "PE"
                                             "PP"
                                                                "PPM"
## [17]
                           "Picardie Debout"
                                             "SE"
                                                                "Tavini"
## [21] "PSG"
                           "Résistons!"
## [25] "MDC"
                           "CSL"
                              Min. 1st Qu. Median
##
                                                         Mean 3rd Qu.
                                                                            Max.
## followers (incl. friends)
                              157 3137.00 5271.00 19389.724
                                                               8789.0 2471949.00
## friends
                                   480.50 945.00 1266.325
                                                                         8487.00
                                 0
                                                               1478.0
## percent friends
                                 0
                                      9.66
                                             17.39
                                                       19.460
                                                                 26.7
                                                                           70.04
## number of followers stratified by party: see below for plot
## table of parties:
##
         ges twitter percent
                   8 100.00
## Agir
           8
           9
## DVG
                   8
                       88.89
## FI
          12
                  12 100.00
## LR
         107
                  99
                       92.52
## LREM
         307
                 299
                       97.39
## MoDem
         42
                  42
                      100.00
## PCF
                       66.67
           9
                   6
## PS
          27
                  26
                       96.30
## RN
                   6
                     100.00
           6
## UDI
          14
                  12
                       85.71
## number of unique tweets downloaded: 1148112
## - filter to those that are considered: 1082184 (94.26 \%)
## - number of retweets: 522019 (48.24 %)
## - number of quotes: 68128 (6.3 %)
## - number of tweets per day: see below for plot
## number of retweets stratified by party:
                                Mean 3rd Qu.
         Min. 1st Qu. Median
##
                                                Max.
            0
                    3
                            8 67.62
                                               38040
## Agir
                                          18
## DVG
            0
                            3 45.76
                    0
                                          14
                                               42055
## FI
            0
                   15
                           50 201.81
                                         156
                                               83565
                    2
## LR
            0
                            7 98.95
                                          29 119470
## LREM
                    2
                            8 225.35
                                          42 1575222
            0
```

MoDem

2

0

6 150.24

```
## PCF
                          13 123.71
                                          40 204509
## PS
            0
                    2
                           7 170.74
                                          24 1575202
## RN
            0
                   25
                         111 355.32
                                         357 222316
## UDI
                    2
                           6 198.48
                                          22 1575213
            0
## number of favorites stratified by party:
         Min. 1st Qu. Median
                               Mean 3rd Qu.
## Agir
                    0
                           2 13.43
            0
                                          15 1121
## DVG
            0
                    0
                           0
                               6.11
                                           3 1905
## FI
            0
                    0
                          22 144.46
                                         104 58170
## LR
            0
                    0
                           0 21.03
                                          7 8108
                           0 11.44
## LREM
            0
                    0
                                          6 20187
                              4.15
## MoDem
            0
                    0
                           0
                                          3 4582
## PCF
            0
                    0
                           3 42.22
                                          24 9238
## PS
            0
                    0
                           0 13.26
                                          7 7265
## RN
            0
                    0
                           1 234.48
                                         143 12319
## UDI
            0
                    0
                           0 11.10
                                           4 3926
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 244558 (21.3 %)
## number of links in tweets: 249437
## number of unique links in tweets (before expanding): 208292
## number of successful requests (status_code == 200): 185467 (89.04 %)
## number of successful expanded links (expanded URL != NA): 201037 (96.52 %)
## number of unique links in tweets (after expanding): 194532
## number of unique links in tweets (after expanding and replacement of NAs): 201779
## number of unique url_cores: 7773
## top ten of url_cores:
##
##
               twitter
                                  facebook
                                                        youtube
                                                                             lemonde
                 81312
                                      26840
                                                           8214
                                                                                5824
                                                                         leparisien
## assemblee-nationale
                              francetvinfo
                                                       lefigaro
##
                                                           4151
                                                                                3938
                  5127
                                       4420
##
                  pscp
                              ouest-france
                  3391
##
                                       2547
## number of scraped unique URLs: 48829 (24.2 %)
  - successful: 34770 (71.21 %)
## table of scraped types of content:
##
                  ges successful percent
## article
                35430
                           34770
                                   98.14
                               0
                                    0.00
## discussion
                   58
## event
                 1245
                               0
                                    0.00
                  469
                               0
                                    0.00
## image
## job
                    1
                               0
                                    0.00
                               0
                                    0.00
## organization 1623
## other
                 3505
                                    0.00
## product
                                    0.00
                   16
                               0
```

```
## profile
               73
                         0
                             0.00
## video
              1818
                             0.00
                         0
## number of politicians in parliament: 709
## number of politicians with twitter account: 530 (74.75 %)
## number of verified twitter accounts: 364 (70.27 %)
## number of parties exceeding one percent in parliament: 7 (99.15 % of seats)
## number of corresponding twitter accounts in dataset : 516 (72.78 % of seats)
## most of the following statistics are based on twitter accounts and parties
    that exceed the one percent election threshold in parliament!
## parties that are not considered:
## [1] "Parteilos"
##
                       Min. 1st Qu. Median
                                             Mean 3rd Qu.
                                                            Max.
## followers (incl. friends) 148 1643.75 3601.00 14318.9380 7690.50 691587.00
## friends
                          0
                            247.75
                                   554.50
                                          906.2558 1191.00
                                                          8397.00
                          0
                              7.56
                                    17.12
                                           19.1100
                                                   27.84
                                                           68.37
## percent friends
## number of followers stratified by party: see below for plot
## table of parties:
       ges twitter percent
##
## AfD
        89
              78
                  87.64
## CDU
       200
              112
                  56.00
## CSU
        46
              26
                  56.52
## FDP
        80
              72
                  90.00
## GRÜNE
              62
                  92.54
       67
## LINKE
        69
              60
                  86.96
## SPD
       152
              118
                  77.63
## number of unique tweets downloaded: 908105
  - filter to those that are considered: 898517 (98.94 %)
## - number of retweets: 340382 (37.88 %)
  - number of quotes: 71654 (7.97 %)
##
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
       Min. 1st Qu. Median
                         Mean 3rd Qu.
## AfD
         0
                3
                     21 166.02
                                116 819422
## CDU
         0
                0
                      1 108.45
                                  7 1569574
## CSU
         0
                0
                      1 82.58
                                    692998
## FDP
         0
                0
                      1 62.11
                                  7
                                    370585
## GRÜNE
         0
                0
                      3 167.00
                                 16 778130
## LINKE
                      6 149.95
         0
                1
                                 24 1569537
```

SPD

0

0

1 159.10

```
## number of favorites stratified by party:
##
       Min. 1st Qu. Median Mean 3rd Qu.
                                     Max.
## AfD
          0
                 0
                       0 70.48
                                  20
                                    7417
## CDU
          0
                 0
                       0 9.68
                                   2 12339
## CSU
          0
                 0
                       0 16.39
                                    8101
## FDP
                 0
                                   5 15382
          0
                       0 20.40
## GRÜNE
          0
                 0
                       0 24.67
                                   6 27314
                                   9 36932
## LINKE
          0
                 0
                       0 27.33
## SPD
                 0
                       0 33.28
                                   4 47852
          0
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 293900 (32.36 %)
## number of links in tweets: 300028
## number of unique links in tweets (before expanding): 270943
## number of successful requests (status_code == 200): 237066 (87.5 %)
## number of successful expanded links (expanded URL != NA): 265424 (97.96 %)
## number of unique links in tweets (after expanding): 254693
## number of unique links in tweets (after expanding and replacement of NAs): 260202
## number of unique url_cores: 8826
## top ten of url_cores:
##
##
      twitter
                 facebook
                             spiegel
                                        youtube
                                                     welt
                                                           tagesschau
        82527
                   39529
                               9733
                                                      8377
                                                                4841
                                          8689
##
  sueddeutsche
                instagram
                                faz
                                      bundestag
##
         4757
                    4537
                               4313
                                          4178
## number of scraped unique URLs: 66612 (25.6 %)
   - successful: 49388 (74.14 %)
## table of scraped types of content:
##
               ges successful percent
## article
             49789
                       49210
                             98.84
## discussion
                32
                          0
                              0.00
## event
              2969
                          0
                              0.00
                              0.00
## faq
                          0
                 1
               750
                              0.67
## image
                          5
                 1
                          0
                              0.00
  job
## organization 1348
                              0.00
                          \cap
              5405
                          0
                              0.00
## other
                              0.00
## product
                15
               351
                              0.00
## profile
                          0
                              0.00
## video
               941
```

```
## Warning in readRDS(file.path("data", i, "botdata.rds")): strings not
## representable in native encoding will be translated to UTF-8
## Warning in readRDS(file.path("data", i, "botdata.rds")): input string '{"og_vocabulary":[{"uri":"htt
## The Ash Center invites you to a public discussion about empowering citizens through direct democrac
## 
##
## 
## <img height="90" width="177" alt="Yes Europe Lab" title="Yes Europe Lab" class="media-element file-
## number of politicians in parliament: 630
## number of politicians with twitter account: 492 (78.1 %)
## number of verified twitter accounts: 168 (44.92 %)
## number of parties exceeding one percent in parliament: 7 (94.6 % of seats)
## number of corresponding twitter accounts in dataset : 355 (56.35 % of seats)
## most of the following statistics are based on twitter accounts and parties
     that exceed the one percent election threshold in parliament!
## parties that are not considered:
    [1] "Cambiamo!" "Art. 1"
                                 "SV"
                                             "SI"
                                                                      "AN"
                                                         "RI"
   [7] "CD"
                    "PP"
                                 "PDR-SF"
                                             "PATT"
                                                         "USEI"
                                                                      "PSI"
## [13] "Moderati"
                    "PLI"
                                 "Eco"
                                             "ÉViva"
                                                         "PdL"
                                                                      "MAIE"
## [19] "MA"
                    "AR"
                                             "GI"
                                                         "PeC"
                                 "PlusEU"
##
                             Min. 1st Qu. Median
                                                         Mean 3rd Qu.
## followers (incl. friends)
                               30 803.00 2305.00 23305.4648 8484.00 993590.0
## friends
                                   154.00
                                           441.00
                                                     892.6873 902.00 12892.0
                                0
                                      7.63
                                             19.82
                                                      24.0500
                                                                36.71
## percent friends
                                                                           86.6
## number of followers stratified by party: see below for plot
## table of parties:
##
                ges twitter percent
## FdI
                 33
                         25
                              75.76
                 95
                         79
                              83.16
## FI
                              88.89
## Indipendente
                  9
                          8
## IV
                 28
                         26
                              92.86
## LN
                         83
                              66.94
                124
## M5S
                216
                        170
                              78.70
                              84.62
## PD
                 91
                         77
## number of unique tweets downloaded: 650199
## - filter to those that are considered: 604096 (92.91 %)
## - number of retweets: 223695 (37.03 %)
  - number of quotes: 12517 (2.07 %)
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
                Min. 1st Qu. Median
                                      Mean 3rd Qu.
                                                       Max.
## FdI
                   0
                           0
                                     76.10
                                                     112346
                                  3
                                                 31
                                     40.90
                                                     161024
## FI
                   0
                           1
                                                 16
                           2
                                  5 25.65
                                                      44586
## Indipendente
                   0
                                                 11
```

```
8 215.67
                                                  53 1574954
## IV
                   0
## T.N
                   0
                            0
                                   2 169.59
                                                  16 181493
## M5S
                   0
                                   6 87.87
                                                 32 949861
## PD
                   0
                                   5 259.07
                                                  31 1574955
                            1
## number of favorites stratified by party:
##
                Min. 1st Qu. Median
                                       Mean 3rd Qu. Max.
## FdI
                            0
                                   0 127.27
                                                   2 13024
## FI
                   0
                            0
                                       6.22
                                                     7110
## Indipendente
                            0
                                   0
                                      8.22
                                                   9
                                                       994
                   0
## IV
                   0
                            0
                                   1 77.13
                                                  22 11120
                                   0 21.12
## LN
                   0
                            0
                                                     4025
## M5S
                   0
                                   1 28.18
                                                   6 9423
                            0
## PD
                   0
                                   0
                                     47.87
                                                   6 22586
                            0
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 223291 (34.34 %)
## number of links in tweets: 226710
## number of unique links in tweets (before expanding): 210243
## number of successful requests (status_code == 200): 180910 (86.05 %)
## number of successful expanded links (expanded URL != NA): 202689 (96.41 %)
## number of unique links in tweets (after expanding): 194989
## number of unique links in tweets (after expanding and replacement of NAs): 202530
## number of unique url_cores: 6508
## top ten of url_cores:
##
##
            facebook
                                twitter
                                                   youtube
                                                                 beppegrillo
##
               90634
                                  17723
                                                      9045
                                                                         7347
                                                repubblica
           instagram ilblogdellestelle
                                                                    corriere
##
                5389
                                   4305
                                                      4182
                                                                         2689
## ilfattoquotidiano
                                     fb
                                   1796
##
                2077
## number of scraped unique URLs: 50227 (24.8 %)
  - successful: 22424 (44.65 %)
## table of scraped types of content:
##
                  ges successful percent
## article
                23673
                            22424
                                    94.72
                                     0.00
## discussion
                  358
                                0
## event
                 3424
                                0
                                     0.00
## faq
                    2
                                0
                                     0.00
## image
                 2517
                                0
                                     0.00
## organization
                  683
                                     0.00
                 5607
                                0
                                     0.00
## other
## product
                   12
                                0
                                     0.00
                   72
                                0
                                     0.00
## profile
## video
                 4929
                                     0.00
```

```
## number of politicians in parliament: 149
## number of politicians with twitter account: 143 (95.97 %)
## number of verified twitter accounts: 73 (52.14 %)
## number of parties exceeding one percent in parliament: 13 (98.66 % of seats)
## number of corresponding twitter accounts in dataset : 138 (92.62 % of seats)
## most of the following statistics are based on twitter accounts and parties
    that exceed the one percent election threshold in parliament!
## parties that are not considered:
## [1] "vKA"
              "Van Haga"
                       Min. 1st Qu. Median
                                           Mean 3rd Qu.
                                                           Max.
## followers (incl. friends)
                         55 4294.50 7640.50 24014.90 14732.50 814312.00
## friends
                          0 407.75 721.50 1056.00 1410.50
                                                        5402.00
## percent friends
                          0
                              4.37
                                  11.63
                                           14.35
                                                          49.47
                                                  20.62
## number of followers stratified by party: see below for plot
## table of parties:
##
        ges twitter percent
## 50PLUS
         4
                4 100.00
## CDA
        19
               19 100.00
## CU
         5
                4
                   80.00
## D66
        19
               19 100.00
## DENK
         3
                3
                  100.00
         2
                2 100.00
## FvD
## GL
        13
               11
                   84.62
## PvdA
         9
                9 100.00
         4
                  100.00
## PvdD
                4
## PVV
        20
               18
                   90.00
## SGP
         3
                3
                 100.00
## SP
         14
                   92.86
               13
## VVD
        32
               32 100.00
## number of unique tweets downloaded: 375849
  - filter to those that are considered: 369495 (98.31 %)
## - number of retweets: 159194 (43.08 %)
##
  - number of quotes: 31311 (8.47 %)
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
        Min. 1st Qu. Median Mean 3rd Qu.
                                       Max.
                      6 103.79
## 50PLUS
                 2
                                  15 378511
          0
## CDA
          0
                 0
                      3 94.21
                                  10 1574977
## CU
          0
                 0
                      4 33.55
                                  13
                                      79513
## D66
          0
                 0
                      3 117.54
                                  12 350582
```

```
## DENK
                     2
                             6 247.79
                                           18 284679
## FvD
                           165 358.79
                                          327
                                                 65629
             0
                    69
## GL
                     0
                             2 136.73
                                            17 1574965
                                47.39
## PvdA
             0
                     0
                             3
                                                200297
                                            11
## PvdD
             0
                     1
                             8
                                72.97
                                            35
                                                 81371
## PVV
             0
                           154 444.87
                                               218566
                    38
                                          341
## SGP
             0
                             5 45.35
                                                23404
                     1
                                            15
## SP
                             8 108.59
                                            34 212063
             0
                      1
## VVD
             0
                      0
                                55.11
                                                240877
## number of favorites stratified by party:
          Min. 1st Qu. Median
                                 Mean 3rd Qu.
                                                Max.
## 50PLUS
                                15.00
             0
                     0
                             1
                                         11.0
                                                3941
## CDA
             0
                     0
                             0
                                 7.57
                                          2.0 10233
## CU
             0
                     0
                             1
                               19.79
                                          11.0
                                              2834
## D66
             0
                      0
                             0
                                11.26
                                          4.0 10888
## DENK
                     0
                             0
                                 8.43
                                          0.0
                                                2545
             0
## FvD
                      0
                             0 217.21
                                          24.5
                                                6020
## GL
                     0
                             0 23.30
                                          6.0
                                              4658
             0
## PvdA
             0
                     0
                             0 15.51
                                          5.0
                                                6187
## PvdD
             0
                      0
                             0 26.73
                                         12.0 3635
## PVV
             0
                      0
                             0 67.75
                                          0.0 58317
## SGP
                             0 16.62
             0
                      0
                                          3.0
                                              2552
## SP
             0
                             0
                                18.79
                                          7.0
                                                3460
                      0
## VVD
             0
                      0
                             0
                                 4.38
                                          1.0 6386
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 108380 (28.84 %)
## number of links in tweets: 112089
## number of unique links in tweets (before expanding): 96880
## number of successful requests (status_code == 200): 86927 (89.73 %)
## number of successful expanded links (expanded URL != NA): 94409 (97.45 %)
## number of unique links in tweets (after expanding): 91249
## number of unique links in tweets (after expanding and replacement of NAs): 93706
## number of unique url_cores: 4973
## top ten of url_cores:
##
##
       twitter
                       nos
                               dpgmedia
                                          telegraaf
                                                         youtube
                                                                 volkskrant
##
         39055
                       5511
                                   4932
                                                4413
                                                            2467
                                                                         2405
##
           nrc
                         nu tweedekamer
                                            facebook
##
          2211
                      2085
                                   1945
                                                1881
## number of scraped unique URLs: 28509 (30.42 %)
   - successful: 17736 (62.21 %)
## table of scraped types of content:
##
                  ges successful percent
## article
                18634
                            17736
                                    95.18
## discussion
                                     0.00
                   41
                                0
```

```
## event
              1316
                             0.00
               56
                             0.00
## image
                         0
## organization
             2275
                             0.00
## other
              2516
                         0
                             0.00
## product
               21
                         0
                             0.00
               45
                             0.00
## profile
                         0
## video
                             0.00
              318
## number of politicians in parliament: 650
## number of politicians with twitter account: 598 (92 %)
## number of verified twitter accounts: 526 (89 %)
## number of parties exceeding one percent in parliament: 6 (98.62 % of seats)
## number of corresponding twitter accounts in dataset : 583 (89.69 % of seats)
## most of the following statistics are based on twitter accounts and parties
   that exceed the one percent election threshold in parliament!
## parties that are not considered:
## [1] "Labour Co-operative" "Plaid Cymru"
                                          "Green"
## [4] "SDLP"
                        "Speaker"
                                          "Alliance"
##
                        Min. 1st Qu.
                                    Median
                                              Mean 3rd Qu.
                                                              Max.
                        233 8026.50 15950.00 46162.997 29065.50 2893448.00
## followers (incl. friends)
## friends
                          0 620.50
                                   1242.00
                                          2084.983
                                                   2640.00
                                                           23742.00
                                                              53.25
## percent friends
                          0
                              3.99
                                      9.34
                                            12.250
                                                    18.12
## number of followers stratified by party: see below for plot
## table of parties:
                 ges twitter percent
## Conservative
                 365
                       325
                            89.04
## DUP
                   8
                         6
                            75.00
## Labour
                 202
                        193
                            95.54
## Liberal Democrats
                  11
                        11
                            100.00
## Scottish National
                  48
                        47
                            97.92
## Sinn Féin
                         7 100.00
## number of unique tweets downloaded: 1567244
## - filter to those that are considered: 1541822 (98.38 %)
## - number of retweets: 739835 (47.98 %)
  - number of quotes: 153699 (9.97 %)
  - number of tweets per day: see below for plot
## number of retweets stratified by party:
##
                 Min. 1st Qu. Median
                                   Mean 3rd Qu.
                                                Max.
                                4 274.74
## Conservative
                   0
                          1
                                           25 1575006
                                           12 231838
## DUP
                   0
                                3 95.22
                          1
```

```
8 515.82
## Labour
                                                      62 1575002
## Liberal Democrats
                                1
                                       8 331.42
                                                      52 643898
                        0
## Scottish National
                                2
                                      13 458.04
                        0
                                                      99 687981
## Sinn Féin
                                4
                                      11 233.81
                                                      30 396228
                        0
## number of favorites stratified by party:
                                           Mean 3rd Qu.
                     Min. 1st Qu. Median
                                       0 57.57
## Conservative
                        0
                                0
                                                      5 375689
## DUP
                        0
                                0
                                       0 16.43
                                                      2
                                                           4773
## Labour
                                0
                                       0 144.20
                        0
                                                      10 322026
## Liberal Democrats
                        0
                                0
                                       1 73.73
                                                      19 25820
## Scottish National
                                       0 46.46
                                                      6 40801
                                0
                        0
## Sinn Féin
                                       0 27.04
                                                           5447
                        0
                                0
## the following statistics describes the non-filtered tweets!
## number of unique tweets with links: 370019 (23.61 %)
## number of links in tweets: 376641
## number of unique links in tweets (before expanding): 307363
## number of successful requests (status_code == 200): 281682 (91.64 %)
## number of successful expanded links (expanded URL != NA): 301055 (97.95 %)
## number of unique links in tweets (after expanding): 292947
## number of unique links in tweets (after expanding and replacement of NAs): 299228
## number of unique url_cores: 13160
## top ten of url_cores:
##
##
       twitter theguardian
                                                       facebook
                                               bbc
                                                                    youtube
                                   gov
##
        181930
                     12468
                                 10822
                                              10514
                                                           7671
                                                                       4670
##
     telegraph
                    mirror
                              thetimes
                                        parliament
          4463
                      3446
##
                                  3419
                                               3272
## number of scraped unique URLs: 70336 (23.51 %)
## - successful: 50751 (72.16 %)
## table of scraped types of content:
                  ges successful percent
##
                           50751
                                   98.69
## article
                51424
## discussion
                   39
                               0
                                    0.00
                                    0.00
## event
                 1846
                               0
## faq
                    2
                               0
                                    0.00
                                    0.00
## image
                  160
                               0
## job
                  182
                               0
                                    0.00
## organization 1560
                               0
                                    0.00
                 6760
                               0
                                    0.00
## other
## product
                   66
                                    0.00
## profile
                               0
                                    0.00
                  119
## video
                  905
                                    0.00
```





































