

# Midterm Report

*SR*

*20/10/2019*

## R Markdown

Packages used for this analysis:

```
library(tidyverse)
library(psych)
library(ggplot2)
library(devtools)
library(readtext)
library(quanteda)
library(quanteda.corpora)
library(tm)
library(SnowballC)
library(dplyr)
library(tidyr)
library(REdaS)
```

Import of training set of documents (300 single media articles as “.txt” files) from working directory

```
textx <- readtext("training set/*",
                  docvarsfrom = "filenames",
                  dvsep="-")
```

Because every .txt file contained the document variables in rows and not in columns or nodes (as opposed to a regularly structured document), we pre-processed the data to enable the proper labelling and subsequent treatment thereof. The warning messages point to the fact that the data still requires manual attention.

```
textx_split <- str_split(textx$text, "\n", simplify = TRUE)
textx_split_merged <- as.data.frame(textx_split) %>% unite(text, c(V10:ncol(textx_split)),
                                                         sep = " ", remove = FALSE)
textx_split_merged[11:ncol(textx_split_merged)] <- list(NULL)
colnames(textx_split_merged) <- c("title", "author", "length", "date", "time", "medium",
                                   "source", "language", "source2", "text")
textx_split_merged2 <- separate(textx_split_merged, c(date), c("day", "month", "year"),
                                sep = " ", remove = TRUE)
```

```
## Warning: Expected 3 pieces. Additional pieces discarded in 1 rows [102].
```

```
## Warning: Expected 3 pieces. Missing pieces filled with `NA` in 31 rows [1,
## 9, 25, 38, 49, 85, 103, 123, 131, 134, 140, 141, 154, 196, 235, 236, 237,
## 249, 250, 259, ...].
```

```
textx_split_merged2 <- separate(textx_split_merged2, c(length), c("wordcount", "words"),
                                sep = " ", remove = TRUE)
```

```
## Warning: Expected 2 pieces. Additional pieces discarded in 11 rows [9, 17,
## 25, 38, 49, 85, 123, 154, 196, 206, 269].
```

```
## Warning: Expected 2 pieces. Missing pieces filled with `NA` in 3 rows [1,
## 102, 103].
```

```
txtx_split_merged2$words <- NULL
txtx_split_merged2 <- unite(txtx_split_merged2, "id", c(year, medium, title),
                           sep = "_", remove = FALSE)
```

Amid the low quality and low degree of harmonisation of the data, we proceeded to further manually process the data to have a usable dfm. As we will proceed with the analysis and get more familiar with the peculiarities of the data during that process, this list will still be extended. Some selected terms are not eliminated entirely, but substituted with a space. This allows for distance metrics to be applied later in the analysis, if needed.

```
txtx_split_merged3 <- txtx_split_merged2
txtx_split_merged3$text <- gsub("www.theguardian.com", "",
                               txtx_split_merged3$text, ignore.case = T)
txtx_split_merged3$text <- gsub("www.telegraph.co.uk#upd", "",
                               txtx_split_merged3$text, ignore.case = T)
txtx_split_merged3$text <- gsub("ref_src", "", txtx_split_merged3$text,
                               ignore.case = T)
txtx_split_merged3$text <- gsub("www.telegraph.co.uk", "",
                               txtx_split_merged3$text, ignore.case = T)
txtx_split_merged3$text <- gsub("\\d", " ", txtx_split_merged3$text,
                               ignore.case = T)
txtx_split_merged3$text <- gsub("Times Newspapers Limited", "",
                               txtx_split_merged3$text, ignore.case = T)
txtx_split_merged3$text <- gsub("Copyright", "", txtx_split_merged3$text,
                               ignore.case = T)
txtx_split_merged3$text <- gsub("All rights reserved", "",
                               txtx_split_merged3$text, ignore.case = T)
txtx_split_merged3$text <- gsub("The Guardian", " ",
                               txtx_split_merged3$text, ignore.case = T)
txtx_split_merged3$text <- gsub("Independent Print Ltd", "",
                               txtx_split_merged3$text, ignore.case = T)
```

Next, we created a data corpus:

```
txt_corpus <- corpus(txtx_split_merged3, docid_field = "id", text_field = "text")
txt_corpus_dfm <- dfm(txt_corpus)
```

In the next step, we created token vars that we would use for the first part of our analysis, the principal component analysis (PCA). In that process, in line with Greussing and Boomgaarden (2017), we removed numbers, punctuation, hyphens and stopwords. Furthermore, we lower-cased all letters.

```
toks <- tokens(txt_corpus, what="word", remove_numbers=TRUE, remove_punct=TRUE,
              remove_hyphens=TRUE, include_docvars = TRUE)

tok_dfm <- dfm(toks, tolower = TRUE, remove = stopwords("en"))
```

For the PCA, in line with Greussing and Boomgaarden (2017), we identified the 500 most frequent tokens. However, because this is a training set, we have not yet fully treated them. This explains the bug-tokens such as “get” or “pic.twitter.com”. That step will be fully executed after having further explored the bugs within the individual “txt” documents. Some terms already catch the eye, such as “fossil”, “johnson”, “extinction”, “thunberg” or “rebellion”.

```
test_tok_dfm <- tok_dfm
test_tok_dfm <- dfm_select(test_tok_dfm, min_nchar = 2)
test_tok_dfm <- dfm_trim(test_tok_dfm, min_termfreq = 500, termfreq_type = "rank")
head(featurnames(test_tok_dfm), 500)
```

```
##      [1] "can"           "get"           "fossil"
```

|    |       |                |                 |             |
|----|-------|----------------|-----------------|-------------|
| ## | [4]   | "fuel"         | "companies"     | "right"     |
| ## | [7]   | "thing"        | "lot"           | "left"      |
| ## | [10]  | "us"           | "one"           | "really"    |
| ## | [13]  | "like"         | "money"         | "last"      |
| ## | [16]  | "week"         | "young"         | "http"      |
| ## | [19]  | "news"         | "taking"        | "campaign"  |
| ## | [22]  | "live"         | "mar"           | "election"  |
| ## | [25]  | "trump"        | "high"          | "see"       |
| ## | [28]  | "everyone"     | "move"          | "impact"    |
| ## | [31]  | "stop"         | "according"     | "water"     |
| ## | [34]  | "new"          | "york"          | "times"     |
| ## | [37]  | "far"          | "issue"         | "good"      |
| ## | [40]  | "first"        | "cut"           | "without"   |
| ## | [43]  | "including"    | "much"          | "also"      |
| ## | [46]  | "financial"    | "business"      | "large"     |
| ## | [49]  | "coal"         | "power"         | "country"   |
| ## | [52]  | "related"      | "https"         | "recent"    |
| ## | [55]  | "years"        | "international" | "just"      |
| ## | [58]  | "least"        | "two"           | "oil"       |
| ## | [61]  | "part"         | "state"         | "leading"   |
| ## | [64]  | "climate"      | "scientists"    | "keep"      |
| ## | [67]  | "carbon"       | "will"          | "levels"    |
| ## | [70]  | "warming"      | "found"         | "david"     |
| ## | [73]  | "months"       | "trade"         | "make"      |
| ## | [76]  | "despite"      | "many"          | "say"       |
| ## | [79]  | "took"         | "gas"           | "current"   |
| ## | [82]  | "made"         | "environment"   | "sep"       |
| ## | [85]  | "world"        | "important"     | "policies"  |
| ## | [88]  | "sector"       | "change"        | "still"     |
| ## | [91]  | "funding"      | "day"           | "year"      |
| ## | [94]  | "temperatures" | "since"         | "need"      |
| ## | [97]  | "know"         | "long"          | "time"      |
| ## | [100] | "old"          | "people"        | "research"  |
| ## | [103] | "told"         | "now"           | "movement"  |
| ## | [106] | "done"         | "future"        | "saying"    |
| ## | [109] | "half"         | "thought"       | "tackle"    |
| ## | [112] | "go"           | "point"         | "going"     |
| ## | [115] | "deal"         | "problem"       | "next"      |
| ## | [118] | "planet"       | "human"         | "questions" |
| ## | [121] | "office"       | "continue"      | "things"    |
| ## | [124] | "take"         | "real"          | "way"       |
| ## | [127] | "free"         | "another"       | "president" |
| ## | [130] | "come"         | "back"          | "put"       |
| ## | [133] | "ice"          | "rising"        | "means"     |
| ## | [136] | "governments"  | "must"          | "latest"    |
| ## | [139] | "science"      | "want"          | "cities"    |
| ## | [142] | "century"      | "place"         | "fuels"     |
| ## | [145] | "university"   | "published"     | "energy"    |
| ## | [148] | "meeting"      | "temperature"   | "targets"   |
| ## | [151] | "set"          | "paris"         | "every"     |
| ## | [154] | "zero"         | "hard"          | "head"      |
| ## | [157] | "great"        | "speech"        | "natural"   |
| ## | [160] | "look"         | "private"       | "around"    |
| ## | [163] | "earth"        | "help"          | "status"    |

|          |               |              |                 |
|----------|---------------|--------------|-----------------|
| ## [166] | "media"       | "policy"     | "work"          |
| ## [169] | "system"      | "company"    | "projects"      |
| ## [172] | "health"      | "global"     | "almost"        |
| ## [175] | "always"      | "ever"       | "may"           |
| ## [178] | "comes"       | "within"     | "land"          |
| ## [181] | "thousands"   | "never"      | "political"     |
| ## [184] | "give"        | "needed"     | "market"        |
| ## [187] | "hope"        | "action"     | "needs"         |
| ## [190] | "economy"     | "huge"       | "well"          |
| ## [193] | "jobs"        | "public"     | "environmental" |
| ## [196] | "communities" | "little"     | "together"      |
| ## [199] | "challenge"   | "result"     | "something"     |
| ## [202] | "start"       | "tax"        | "leave"         |
| ## [205] | "big"         | "former"     | "generation"    |
| ## [208] | "level"       | "fight"      | "clear"         |
| ## [211] | "looking"     | "best"       | "rise"          |
| ## [214] | "article"     | "guardian"   | "newspapers"    |
| ## [217] | "limited"     | "document"   | "grdn"          |
| ## [220] | "ec"          | "world's"    | "biggest"       |
| ## [223] | "countries"   | "towards"    | "group"         |
| ## [226] | "said"        | "bank"       | "role"          |
| ## [229] | "spending"    | "conference" | "development"   |
| ## [232] | "greenhouse"  | "emissions"  | "agreement"     |
| ## [235] | "united"      | "nations"    | "major"         |
| ## [238] | "increase"    | "renewable"  | "green"         |
| ## [241] | "sustainable" | "growing"    | "national"      |
| ## [244] | "plans"       | "john"       | "director"      |
| ## [247] | "million"     | "taken"      | "bn"            |
| ## [250] | "across"      | "fund"       | "enough"        |
| ## [253] | "target"      | "use"        | "less"          |
| ## [256] | "education"   | "impacts"    | "strong"        |
| ## [259] | "end"         | "past"       | "already"       |
| ## [262] | "away"        | "used"       | "find"          |
| ## [265] | "industrial"  | "data"       | "led"           |
| ## [268] | "rather"      | "says"       | "due"           |
| ## [271] | "co"          | "higher"     | "summit"        |
| ## [274] | "extreme"     | "weather"    | "food"          |
| ## [277] | "industry"    | "even"       | "better"        |
| ## [280] | "per"         | "cent"       | "changes"       |
| ## [283] | "short"       | "term"       | "net"           |
| ## [286] | "rate"        | "working"    | "given"         |
| ## [289] | "whether"     | "think"      | "study"         |
| ## [292] | "workers"     | "uk"         | "call"          |
| ## [295] | "uk's"        | "fact"       | "number"        |
| ## [298] | "crisis"      | "able"       | "politicians"   |
| ## [301] | "question"    | "possible"   | "plan"          |
| ## [304] | "economic"    | "longer"     | "debate"        |
| ## [307] | "actually"    | "asked"      | "students"      |
| ## [310] | "low"         | "mark"       | "example"       |
| ## [313] | "community"   | "address"    | "case"          |
| ## [316] | "care"        | "today"      | "children"      |
| ## [319] | "five"        | "society"    | "risk"          |
| ## [322] | "shows"       | "services"   | "however"       |
| ## [325] | "strike"      | "threat"     | "south"         |

|          |                   |              |                |
|----------|-------------------|--------------|----------------|
| ## [328] | "north"           | "different"  | "become"       |
| ## [331] | "report"          | "although"   | "show"         |
| ## [334] | "un"              | "face"       | "yet"          |
| ## [337] | "cost"            | "pollution"  | "air"          |
| ## [340] | "often"           | "budget"     | "london"       |
| ## [343] | "among"           | "cause"      | "making"       |
| ## [346] | "might"           | "reduce"     | "schools"      |
| ## [349] | "lead"            | "believe"    | "australia"    |
| ## [352] | "issues"          | "social"     | "life"         |
| ## [355] | "caused"          | "jul"        | "home"         |
| ## [358] | "record"          | "history"    | "ahead"        |
| ## [361] | "nature"          | "activists"  | "called"       |
| ## [364] | "city"            | "ago"        | "using"        |
| ## [367] | "remain"          | "millions"   | "key"          |
| ## [370] | "european"        | "extinction" | "event"        |
| ## [373] | "amazon"          | "growth"     | "china"        |
| ## [376] | "sea"             | "page"       | "members"      |
| ## [379] | "seen"            | "politics"   | "july"         |
| ## [382] | "three"           | "act"        | "jeremy"       |
| ## [385] | "outside"         | "risks"      | "decision"     |
| ## [388] | "britain"         | "meet"       | "british"      |
| ## [391] | "europe"          | "course"     | "government"   |
| ## [394] | "eu"              | "likely"     | "committee"    |
| ## [397] | "small"           | "boris"      | "johnson"      |
| ## [400] | "conservative"    | "farmers"    | "events"       |
| ## [403] | "based"           | "got"        | "added"        |
| ## [406] | "local"           | "trees"      | "expected"     |
| ## [409] | "cuts"            | "george"     | "law"          |
| ## [412] | "warned"          | "support"    | "businesses"   |
| ## [415] | "labour's"        | "shadow"     | "government's" |
| ## [418] | "investment"      | "school"     | "getting"      |
| ## [421] | "second"          | "tory"       | "leader"       |
| ## [424] | "full"            | "party"      | "chief"        |
| ## [427] | "mps"             | "pm"         | "leaders"      |
| ## [430] | "labour"          | "announced"  | "union"        |
| ## [433] | "speaking"        | "feel"       | "wants"        |
| ## [436] | "ireland"         | "ltd"        | "chancellor"   |
| ## [439] | "mcdonnell"       | "protests"   | "groups"       |
| ## [442] | "house"           | "statement"  | "protest"      |
| ## [445] | "court"           | "photograph" | "stage"        |
| ## [448] | "bring"           | "march"      | "morning"      |
| ## [451] | "position"        | "secretary"  | "prime"        |
| ## [454] | "mr"              | "corbyn"     | "parliament"   |
| ## [457] | "vote"            | "minister"   | "osborne"      |
| ## [460] | "days"            | "northern"   | "hunt"         |
| ## [463] | "emergency"       | "earlier"    | "coming"       |
| ## [466] | "executive"       | "general"    | "month"        |
| ## [469] | "leadership"      | "ate"        | "referendum"   |
| ## [472] | "theresa"         | "brexit"     | "twitter.com"  |
| ## [475] | "hashtag"         | "src"        | "hash"         |
| ## [478] | "pic.twitter.com" | "t.co"       | "join"         |
| ## [481] | "strikes"         | "block"      | "september"    |
| ## [484] | "rights"          | "pride"      | "ef"           |
| ## [487] | "supreme"         | "rebellion"  | "greta"        |

```
## [490] "thunberg"      "glastonbury"    "bst"
## [493] "updated"        "twsrc"          "etfw"
## [496] "timeupdated"    "with:block"     "mrs"
## [499] "#climatestrike" "climatestrike"
```

For the final analysis, we will select only the relevant tokens (as in, those which remain after rigorous cleaning) and apply the tf-idf function to calculate their “importance” score.

```
tok_tfidf_dfm <- dfm_tfidf(test_tok_dfm)
```

As a comparison, we applied stemming. Stemming reduces the tokens to their word-stems.

```
tok_stem_dfm <- dfm(toks, stem = TRUE)
tok_stem_dfm <- dfm(tok_stem_dfm, tolower = TRUE, remove = stopwords("en"))
tok_stem_test_dfm <- tok_stem_dfm
tok_stem_test_dfm <- dfm_select(tok_stem_test_dfm, min_nchar = 2)
tok_stem_test_dfm <- dfm_trim(tok_stem_test_dfm, min_termfreq = 500,
                             termfreq_type = "rank")
head(featnames(tok_stem_test_dfm), 100)
```

```
## [1] "can"      "get"      "fossil"   "fuel"     "compani"
## [6] "right"    "thing"    "lot"      "left"     "us"
## [11] "one"      "realli"   "like"     "talk"     "money"
## [16] "last"     "week"     "young"    "campaign" "challeng"
## [21] "http"     "news"     "take"     "live"     "elect"
## [26] "trump"    "high"     "power"    "support"   "see"
## [31] "move"     "veri"     "suggest"  "impact"    "action"
## [36] "stop"     "accord"   "hold"     "water"     "new"
## [41] "york"     "time"     "far"      "issu"      "good"
## [46] "first"    "cut"      "without"  "fact"      "includ"
## [51] "much"     "also"     "activ"    "financi"   "busi"
## [56] "larg"     "coal"     "plant"    "countri"   "relat"
## [61] "attack"   "direct"   "https"    "recent"    "year"
## [66] "intern"   "just"     "least"    "two"       "oil"
## [71] "part"     "effort"   "state"    "lead"      "climat"
## [76] "scientist" "keep"     "major"    "carbon"    "will"
## [81] "level"    "warm"     "found"    "record"    "review"
## [86] "david"    "month"    "trade"    "fund"      "make"
## [91] "environment" "seem"    "mani"     "warn"      "say"
## [96] "gas"      "current"  "view"     "made"      "environ"
```

For the final analysis, we will select only the relevant tokens (as in, those which remain after rigorous cleaning) and apply the tf-idf function to calculate their “importance” score.

```
tok_stem_tfidf_dfm <- dfm_tfidf(tok_stem_test_dfm)
```

We then applied the `principal()` function from the “psych” package to test for the presence of latent variables. In doing so, we defined the number of frames as 5 (RCA1 to RC5). The most logical number of frames is still to be determined, this depends on the variation the different frames are able to explain. We also tested the `prcomp` function, but found its suitability for the analysis of categorical variables to be limited compared to `principal()`, which is designed for categorical variables specifically.

```
principal(as.matrix(tok_stem_tfidf_dfm), nfactors=5, rotate="varimax")
```

```
## Warning in cor.smooth(r): Matrix was not positive definite, smoothing was
## done
```

```
## The determinant of the smoothed correlation was zero.
```

```

## This means the objective function is not defined.
## Chi square is based upon observed residuals.

## The determinant of the smoothed correlation was zero.
## This means the objective function is not defined for the null model either.
## The Chi square is thus based upon observed correlations.

## Warning in principal(as.matrix(tok_tfidf_dfm), nfactors = 5, rotate =
## "varimax"): The matrix is not positive semi-definite, scores found from
## Structure loadings

## Principal Components Analysis
## Call: principal(r = as.matrix(tok_tfidf_dfm), nfactors = 5, rotate = "varimax")
## Standardized loadings (pattern matrix) based upon correlation matrix
##
```

|              | RC1  | RC2   | RC5   | RC3   | RC4   | h2     | u2    | com |
|--------------|------|-------|-------|-------|-------|--------|-------|-----|
| ## can       | 0.65 | 0.47  | 0.40  | 0.11  | 0.16  | 0.8396 | 0.160 | 2.8 |
| ## get       | 0.40 | 0.56  | 0.55  | 0.30  | 0.18  | 0.8969 | 0.103 | 3.6 |
| ## fossil    | 0.82 | 0.00  | 0.02  | 0.02  | -0.01 | 0.6787 | 0.321 | 1.0 |
| ## fuel      | 0.72 | 0.01  | -0.01 | 0.23  | 0.00  | 0.5766 | 0.423 | 1.2 |
| ## companies | 0.55 | 0.06  | 0.01  | 0.28  | 0.01  | 0.3816 | 0.618 | 1.5 |
| ## right     | 0.48 | 0.64  | 0.35  | 0.17  | 0.22  | 0.8341 | 0.166 | 2.9 |
| ## thing     | 0.17 | 0.35  | 0.65  | 0.11  | 0.12  | 0.5949 | 0.405 | 1.8 |
| ## lot       | 0.54 | 0.27  | 0.35  | 0.15  | 0.07  | 0.5159 | 0.484 | 2.5 |
| ## left      | 0.61 | 0.38  | 0.23  | 0.14  | 0.15  | 0.6143 | 0.386 | 2.3 |
| ## us        | 0.81 | 0.25  | 0.30  | 0.05  | 0.22  | 0.8645 | 0.135 | 1.7 |
| ## one       | 0.53 | 0.50  | 0.48  | 0.20  | 0.27  | 0.8680 | 0.132 | 3.8 |
| ## really    | 0.72 | 0.18  | 0.42  | 0.15  | 0.11  | 0.7646 | 0.235 | 1.9 |
| ## like      | 0.48 | 0.24  | 0.67  | 0.08  | 0.02  | 0.7467 | 0.253 | 2.1 |
| ## money     | 0.07 | 0.27  | 0.17  | 0.55  | -0.01 | 0.4070 | 0.593 | 1.7 |
| ## last      | 0.46 | 0.47  | 0.28  | 0.29  | 0.28  | 0.6681 | 0.332 | 4.0 |
| ## week      | 0.57 | 0.61  | 0.13  | 0.15  | 0.01  | 0.7283 | 0.272 | 2.2 |
| ## young     | 0.90 | 0.08  | 0.24  | 0.05  | 0.02  | 0.8831 | 0.117 | 1.2 |
| ## http      | 0.06 | 0.00  | -0.10 | 0.78  | -0.03 | 0.6186 | 0.381 | 1.0 |
| ## news      | 0.32 | 0.83  | 0.10  | 0.12  | 0.17  | 0.8520 | 0.148 | 1.5 |
| ## taking    | 0.85 | 0.32  | 0.22  | 0.12  | 0.10  | 0.9018 | 0.098 | 1.5 |
| ## campaign  | 0.16 | 0.84  | 0.02  | -0.01 | 0.26  | 0.7919 | 0.208 | 1.3 |
| ## live      | 0.31 | 0.82  | 0.17  | 0.01  | 0.39  | 0.9387 | 0.061 | 1.9 |
| ## mar       | 0.20 | -0.05 | 0.07  | 0.06  | -0.02 | 0.0495 | 0.950 | 1.6 |
| ## election  | 0.02 | 0.96  | 0.11  | 0.02  | 0.16  | 0.9562 | 0.044 | 1.1 |
| ## trump     | 0.23 | 0.28  | 0.08  | -0.08 | 0.58  | 0.4850 | 0.515 | 1.9 |
| ## high      | 0.67 | 0.20  | 0.09  | 0.42  | 0.17  | 0.6977 | 0.302 | 2.1 |
| ## see       | 0.35 | 0.74  | 0.32  | 0.10  | 0.30  | 0.8743 | 0.126 | 2.3 |
| ## everyone  | 0.58 | 0.30  | 0.53  | 0.00  | 0.08  | 0.7143 | 0.286 | 2.5 |
| ## move      | 0.33 | 0.58  | 0.21  | 0.34  | 0.16  | 0.6339 | 0.366 | 2.8 |
| ## impact    | 0.53 | 0.19  | 0.11  | 0.21  | 0.19  | 0.4120 | 0.588 | 2.0 |
| ## stop      | 0.42 | 0.59  | 0.28  | 0.09  | 0.42  | 0.7865 | 0.213 | 3.3 |
| ## according | 0.54 | 0.19  | -0.01 | 0.12  | 0.22  | 0.3919 | 0.608 | 1.7 |
| ## water     | 0.64 | 0.01  | 0.18  | 0.25  | -0.02 | 0.5046 | 0.495 | 1.5 |
| ## new       | 0.73 | 0.34  | 0.33  | 0.30  | 0.11  | 0.8551 | 0.145 | 2.3 |
| ## york      | 0.91 | 0.15  | 0.13  | -0.01 | 0.06  | 0.8669 | 0.133 | 1.1 |
| ## times     | 0.21 | 0.35  | 0.20  | 0.60  | 0.18  | 0.5985 | 0.401 | 2.4 |
| ## far       | 0.67 | 0.30  | 0.31  | 0.09  | 0.19  | 0.6772 | 0.323 | 2.1 |
| ## issue     | 0.55 | 0.43  | 0.29  | 0.02  | 0.23  | 0.6218 | 0.378 | 2.9 |
| ## good      | 0.47 | 0.48  | 0.36  | 0.27  | 0.34  | 0.7673 | 0.233 | 4.3 |
| ## first     | 0.53 | 0.40  | 0.63  | 0.26  | 0.07  | 0.9050 | 0.095 | 3.1 |

|                  |      |       |       |       |       |        |       |     |
|------------------|------|-------|-------|-------|-------|--------|-------|-----|
| ## cut           | 0.20 | 0.15  | 0.26  | 0.66  | 0.08  | 0.5785 | 0.421 | 1.7 |
| ## without       | 0.39 | 0.56  | 0.37  | 0.19  | 0.05  | 0.6397 | 0.360 | 2.9 |
| ## including     | 0.80 | 0.33  | 0.21  | 0.11  | 0.24  | 0.8701 | 0.130 | 1.7 |
| ## much          | 0.59 | 0.34  | 0.44  | 0.20  | 0.18  | 0.7299 | 0.270 | 3.0 |
| ## also          | 0.68 | 0.34  | 0.40  | 0.38  | 0.13  | 0.8975 | 0.103 | 2.9 |
| ## financial     | 0.13 | 0.02  | -0.03 | 0.24  | 0.07  | 0.0819 | 0.918 | 1.8 |
| ## business      | 0.25 | 0.22  | 0.00  | 0.63  | 0.26  | 0.5816 | 0.418 | 2.0 |
| ## large         | 0.60 | 0.29  | 0.13  | 0.03  | 0.18  | 0.4944 | 0.506 | 1.8 |
| ## coal          | 0.53 | 0.01  | -0.05 | 0.04  | 0.01  | 0.2841 | 0.716 | 1.0 |
| ## power         | 0.67 | 0.45  | 0.17  | 0.04  | 0.15  | 0.6972 | 0.303 | 2.0 |
| ## country       | 0.47 | 0.49  | 0.45  | 0.30  | 0.26  | 0.8139 | 0.186 | 4.2 |
| ## related       | 0.61 | 0.23  | 0.30  | 0.00  | 0.35  | 0.6355 | 0.364 | 2.5 |
| ## https         | 0.84 | 0.35  | 0.24  | 0.08  | 0.23  | 0.9439 | 0.056 | 1.7 |
| ## recent        | 0.47 | 0.26  | 0.21  | 0.38  | 0.08  | 0.4865 | 0.513 | 3.1 |
| ## years         | 0.52 | 0.32  | 0.36  | 0.42  | 0.05  | 0.6851 | 0.315 | 3.5 |
| ## international | 0.36 | 0.25  | 0.04  | 0.16  | 0.15  | 0.2414 | 0.759 | 2.7 |
| ## just          | 0.57 | 0.43  | 0.50  | 0.31  | 0.17  | 0.8831 | 0.117 | 3.7 |
| ## least         | 0.51 | 0.38  | 0.26  | 0.31  | 0.16  | 0.5964 | 0.404 | 3.4 |
| ## two           | 0.46 | 0.69  | 0.26  | 0.13  | 0.08  | 0.7775 | 0.223 | 2.2 |
| ## oil           | 0.41 | -0.01 | 0.00  | 0.15  | -0.02 | 0.1917 | 0.808 | 1.3 |
| ## part          | 0.84 | 0.26  | 0.28  | 0.08  | 0.05  | 0.8516 | 0.148 | 1.4 |
| ## state         | 0.70 | 0.40  | 0.09  | 0.04  | 0.33  | 0.7687 | 0.231 | 2.2 |
| ## leading       | 0.71 | 0.17  | 0.13  | 0.05  | 0.04  | 0.5585 | 0.442 | 1.2 |
| ## climate       | 0.98 | 0.04  | 0.05  | 0.02  | 0.02  | 0.9692 | 0.031 | 1.0 |
| ## scientists    | 0.38 | -0.02 | 0.03  | 0.00  | -0.03 | 0.1471 | 0.853 | 1.0 |
| ## keep          | 0.41 | 0.23  | 0.53  | 0.30  | 0.20  | 0.6234 | 0.377 | 3.3 |
| ## carbon        | 0.60 | 0.01  | -0.01 | 0.08  | 0.00  | 0.3627 | 0.637 | 1.0 |
| ## will          | 0.38 | 0.59  | 0.40  | 0.46  | 0.19  | 0.8882 | 0.112 | 3.8 |
| ## levels        | 0.67 | 0.06  | 0.05  | 0.18  | 0.03  | 0.4927 | 0.507 | 1.2 |
| ## warming       | 0.31 | -0.05 | -0.03 | 0.01  | -0.01 | 0.0991 | 0.901 | 1.1 |
| ## found         | 0.06 | 0.40  | 0.22  | 0.03  | 0.18  | 0.2485 | 0.752 | 2.1 |
| ## david         | 0.01 | 0.25  | 0.12  | 0.50  | 0.38  | 0.4685 | 0.531 | 2.5 |
| ## months        | 0.45 | 0.27  | 0.19  | 0.60  | 0.08  | 0.6791 | 0.321 | 2.6 |
| ## trade         | 0.14 | 0.49  | 0.16  | 0.15  | 0.39  | 0.4576 | 0.542 | 2.6 |
| ## make          | 0.52 | 0.48  | 0.43  | 0.16  | 0.38  | 0.8560 | 0.144 | 4.0 |
| ## despite       | 0.06 | 0.50  | 0.24  | 0.16  | 0.17  | 0.3609 | 0.639 | 2.0 |
| ## many          | 0.83 | 0.30  | 0.33  | 0.12  | 0.06  | 0.8971 | 0.103 | 1.7 |
| ## say           | 0.40 | 0.70  | 0.34  | 0.17  | 0.22  | 0.8443 | 0.156 | 2.5 |
| ## took          | 0.64 | 0.20  | 0.27  | 0.09  | 0.28  | 0.6148 | 0.385 | 2.0 |
| ## gas           | 0.66 | -0.01 | -0.03 | 0.15  | 0.00  | 0.4594 | 0.541 | 1.1 |
| ## current       | 0.34 | 0.41  | 0.04  | 0.15  | 0.15  | 0.3248 | 0.675 | 2.5 |
| ## made          | 0.48 | 0.42  | 0.44  | 0.13  | 0.40  | 0.7810 | 0.219 | 4.1 |
| ## environment   | 0.86 | 0.07  | 0.04  | 0.10  | 0.02  | 0.7625 | 0.237 | 1.0 |
| ## sep           | 0.63 | 0.66  | 0.03  | -0.04 | -0.10 | 0.8506 | 0.149 | 2.0 |
| ## world         | 0.81 | 0.10  | 0.23  | 0.00  | 0.06  | 0.7283 | 0.272 | 1.2 |
| ## important     | 0.65 | 0.32  | 0.37  | 0.09  | 0.21  | 0.7125 | 0.287 | 2.4 |
| ## policies      | 0.33 | 0.30  | 0.01  | 0.07  | -0.03 | 0.2006 | 0.799 | 2.1 |
| ## sector        | 0.29 | 0.30  | -0.12 | 0.21  | -0.07 | 0.2416 | 0.758 | 3.2 |
| ## change        | 0.90 | 0.12  | 0.11  | 0.07  | 0.12  | 0.8497 | 0.150 | 1.1 |
| ## still         | 0.65 | 0.34  | 0.33  | 0.26  | 0.25  | 0.7772 | 0.223 | 2.8 |
| ## funding       | 0.17 | 0.09  | 0.11  | 0.32  | 0.03  | 0.1546 | 0.845 | 2.0 |
| ## day           | 0.80 | 0.34  | 0.37  | 0.17  | 0.02  | 0.9216 | 0.078 | 1.9 |
| ## year          | 0.76 | 0.20  | 0.27  | 0.32  | 0.07  | 0.7945 | 0.205 | 1.8 |
| ## temperatures  | 0.22 | -0.04 | -0.03 | 0.02  | 0.05  | 0.0525 | 0.948 | 1.3 |



|                |       |       |       |       |       |        |       |     |
|----------------|-------|-------|-------|-------|-------|--------|-------|-----|
| ## since       | 0.45  | 0.27  | 0.29  | 0.47  | 0.21  | 0.6172 | 0.383 | 3.8 |
| ## need        | 0.81  | 0.29  | 0.34  | 0.19  | 0.03  | 0.8906 | 0.109 | 1.8 |
| ## know        | 0.42  | 0.64  | 0.34  | 0.06  | 0.05  | 0.7025 | 0.297 | 2.4 |
| ## long        | 0.38  | 0.27  | 0.41  | 0.36  | 0.40  | 0.6744 | 0.326 | 4.7 |
| ## time        | 0.05  | 0.72  | 0.46  | 0.10  | 0.32  | 0.8515 | 0.149 | 2.2 |
| ## old         | 0.91  | 0.08  | 0.22  | 0.01  | 0.01  | 0.8884 | 0.112 | 1.1 |
| ## people      | 0.79  | 0.39  | 0.35  | 0.10  | 0.09  | 0.9145 | 0.086 | 2.0 |
| ## research    | 0.16  | 0.02  | -0.02 | 0.10  | 0.03  | 0.0382 | 0.962 | 1.8 |
| ## told        | 0.36  | 0.65  | 0.26  | 0.02  | 0.38  | 0.7744 | 0.226 | 2.6 |
| ## now         | 0.58  | 0.62  | 0.34  | 0.13  | 0.21  | 0.9053 | 0.095 | 2.9 |
| ## movement    | 0.69  | 0.20  | 0.24  | -0.08 | 0.06  | 0.5885 | 0.412 | 1.5 |
| ## done        | 0.64  | 0.25  | 0.42  | 0.13  | 0.26  | 0.7249 | 0.275 | 2.6 |
| ## future      | 0.93  | 0.17  | 0.13  | 0.11  | 0.05  | 0.9294 | 0.071 | 1.1 |
| ## saying      | 0.16  | 0.79  | 0.21  | 0.00  | 0.36  | 0.8305 | 0.169 | 1.7 |
| ## half        | 0.34  | 0.34  | 0.14  | 0.26  | 0.10  | 0.3324 | 0.668 | 3.4 |
| ## thought     | 0.28  | 0.42  | 0.33  | 0.05  | 0.26  | 0.4436 | 0.556 | 3.5 |
| ## tackle      | 0.64  | 0.15  | 0.10  | 0.25  | 0.01  | 0.5046 | 0.495 | 1.5 |
| ## go          | 0.33  | 0.69  | 0.45  | 0.07  | 0.11  | 0.8102 | 0.190 | 2.3 |
| ## point       | 0.31  | 0.51  | 0.35  | 0.07  | 0.42  | 0.6566 | 0.343 | 3.5 |
| ## going       | 0.61  | 0.50  | 0.40  | 0.06  | 0.16  | 0.8102 | 0.190 | 2.9 |
| ## deal        | -0.02 | 0.51  | 0.09  | 0.14  | 0.69  | 0.7748 | 0.225 | 2.0 |
| ## problem     | 0.64  | 0.14  | 0.20  | 0.08  | 0.38  | 0.6185 | 0.381 | 2.0 |
| ## next        | 0.49  | 0.48  | 0.39  | 0.39  | 0.27  | 0.8516 | 0.148 | 4.4 |
| ## planet      | 0.90  | 0.04  | 0.11  | -0.01 | -0.01 | 0.8175 | 0.182 | 1.0 |
| ## human       | 0.43  | 0.23  | 0.08  | -0.03 | 0.10  | 0.2600 | 0.740 | 1.8 |
| ## questions   | 0.51  | 0.44  | 0.14  | 0.33  | 0.43  | 0.7682 | 0.232 | 3.9 |
| ## office      | 0.32  | 0.55  | 0.32  | 0.30  | 0.15  | 0.6254 | 0.375 | 3.2 |
| ## continue    | 0.03  | 0.27  | 0.55  | 0.34  | 0.14  | 0.5146 | 0.485 | 2.4 |
| ## things      | 0.51  | 0.26  | 0.53  | 0.11  | 0.11  | 0.6367 | 0.363 | 2.6 |
| ## take        | 0.82  | 0.31  | 0.28  | 0.09  | 0.24  | 0.9079 | 0.092 | 1.8 |
| ## real        | 0.46  | 0.18  | 0.44  | 0.04  | 0.11  | 0.4520 | 0.548 | 2.5 |
| ## way         | 0.66  | 0.36  | 0.49  | 0.06  | 0.09  | 0.8144 | 0.186 | 2.5 |
| ## free        | 0.04  | 0.76  | 0.19  | 0.27  | 0.02  | 0.6913 | 0.309 | 1.4 |
| ## another     | 0.53  | 0.54  | 0.36  | 0.15  | 0.22  | 0.7800 | 0.220 | 3.3 |
| ## president   | 0.35  | 0.21  | 0.15  | -0.03 | 0.45  | 0.3947 | 0.605 | 2.6 |
| ## come        | 0.58  | 0.33  | 0.56  | 0.22  | 0.19  | 0.8453 | 0.155 | 3.1 |
| ## back        | 0.12  | 0.84  | 0.36  | 0.12  | 0.24  | 0.9164 | 0.084 | 1.6 |
| ## put         | 0.30  | 0.68  | 0.34  | 0.14  | 0.23  | 0.7436 | 0.256 | 2.3 |
| ## ice         | 0.11  | -0.01 | 0.11  | -0.02 | 0.00  | 0.0250 | 0.975 | 2.1 |
| ## rising      | 0.61  | 0.13  | -0.03 | 0.16  | 0.18  | 0.4419 | 0.558 | 1.4 |
| ## means       | 0.15  | 0.61  | 0.36  | 0.20  | 0.18  | 0.5979 | 0.402 | 2.2 |
| ## governments | 0.60  | 0.06  | -0.01 | -0.03 | -0.03 | 0.3623 | 0.638 | 1.0 |
| ## must        | 0.17  | 0.61  | 0.28  | 0.21  | 0.34  | 0.6405 | 0.360 | 2.5 |
| ## latest      | 0.30  | 0.86  | 0.02  | 0.10  | 0.11  | 0.8574 | 0.143 | 1.3 |
| ## science     | 0.40  | -0.03 | 0.09  | -0.02 | -0.02 | 0.1735 | 0.826 | 1.1 |
| ## want        | 0.72  | 0.55  | 0.30  | 0.02  | 0.07  | 0.9225 | 0.077 | 2.3 |
| ## cities      | 0.84  | 0.03  | 0.12  | 0.07  | -0.02 | 0.7306 | 0.269 | 1.1 |
| ## century     | 0.34  | 0.09  | 0.22  | 0.12  | 0.11  | 0.2011 | 0.799 | 2.5 |
| ## place       | 0.56  | 0.28  | 0.58  | 0.16  | 0.19  | 0.7915 | 0.209 | 2.8 |
| ## fuels       | 0.69  | 0.00  | 0.01  | 0.01  | 0.00  | 0.4795 | 0.520 | 1.0 |
| ## university  | 0.49  | 0.09  | 0.05  | 0.08  | -0.03 | 0.2531 | 0.747 | 1.1 |
| ## published   | -0.02 | 0.71  | 0.38  | 0.09  | 0.39  | 0.8126 | 0.187 | 2.2 |
| ## energy      | 0.66  | 0.05  | 0.09  | 0.15  | 0.03  | 0.4653 | 0.535 | 1.2 |
| ## meeting     | 0.32  | 0.73  | 0.16  | 0.08  | 0.28  | 0.7499 | 0.250 | 1.8 |

|                  |      |       |       |      |       |        |       |     |
|------------------|------|-------|-------|------|-------|--------|-------|-----|
| ## temperature   | 0.38 | -0.03 | 0.00  | 0.03 | 0.00  | 0.1487 | 0.851 | 1.0 |
| ## targets       | 0.28 | 0.00  | 0.03  | 0.32 | 0.01  | 0.1771 | 0.823 | 2.0 |
| ## set           | 0.28 | 0.18  | 0.50  | 0.16 | 0.19  | 0.4220 | 0.578 | 2.5 |
| ## paris         | 0.59 | -0.01 | -0.08 | 0.05 | 0.03  | 0.3535 | 0.647 | 1.1 |
| ## every         | 0.46 | 0.39  | 0.43  | 0.44 | 0.01  | 0.7525 | 0.248 | 3.9 |
| ## zero          | 0.40 | 0.21  | 0.00  | 0.05 | 0.16  | 0.2368 | 0.763 | 1.9 |
| ## hard          | 0.17 | 0.48  | 0.49  | 0.29 | 0.07  | 0.5889 | 0.411 | 2.9 |
| ## head          | 0.29 | 0.19  | 0.19  | 0.28 | 0.45  | 0.4410 | 0.559 | 3.4 |
| ## great         | 0.37 | 0.28  | 0.62  | 0.19 | 0.12  | 0.6516 | 0.348 | 2.4 |
| ## speech        | 0.08 | 0.53  | 0.27  | 0.34 | 0.17  | 0.4967 | 0.503 | 2.6 |
| ## natural       | 0.64 | 0.00  | 0.17  | 0.03 | -0.02 | 0.4362 | 0.564 | 1.2 |
| ## look          | 0.20 | 0.66  | 0.30  | 0.23 | 0.01  | 0.6169 | 0.383 | 1.9 |
| ## private       | 0.17 | 0.59  | -0.12 | 0.03 | -0.08 | 0.3961 | 0.604 | 1.3 |
| ## around        | 0.80 | 0.25  | 0.23  | 0.16 | 0.05  | 0.7876 | 0.212 | 1.5 |
| ## earth         | 0.79 | 0.01  | 0.09  | 0.03 | -0.03 | 0.6416 | 0.358 | 1.0 |
| ## help          | 0.62 | 0.19  | 0.22  | 0.40 | -0.01 | 0.6327 | 0.367 | 2.2 |
| ## status        | 0.77 | 0.47  | 0.23  | 0.14 | 0.25  | 0.9450 | 0.055 | 2.2 |
| ## media         | 0.38 | 0.39  | 0.26  | 0.02 | 0.27  | 0.4436 | 0.556 | 3.6 |
| ## policy        | 0.17 | 0.75  | 0.00  | 0.14 | 0.16  | 0.6431 | 0.357 | 1.3 |
| ## work          | 0.31 | 0.53  | 0.47  | 0.33 | 0.03  | 0.7076 | 0.292 | 3.4 |
| ## system        | 0.28 | 0.43  | 0.30  | 0.28 | -0.01 | 0.4327 | 0.567 | 3.4 |
| ## company       | 0.67 | 0.10  | 0.03  | 0.24 | 0.05  | 0.5126 | 0.487 | 1.3 |
| ## projects      | 0.28 | 0.03  | -0.01 | 0.37 | -0.03 | 0.2181 | 0.782 | 1.9 |
| ## health        | 0.13 | 0.29  | 0.15  | 0.18 | 0.10  | 0.1648 | 0.835 | 3.1 |
| ## global        | 0.86 | 0.01  | 0.05  | 0.08 | -0.02 | 0.7555 | 0.244 | 1.0 |
| ## almost        | 0.47 | 0.44  | 0.25  | 0.17 | 0.03  | 0.5087 | 0.491 | 2.8 |
| ## always        | 0.35 | 0.36  | 0.65  | 0.08 | 0.06  | 0.6818 | 0.318 | 2.2 |
| ## ever          | 0.50 | 0.26  | 0.57  | 0.22 | 0.09  | 0.7066 | 0.293 | 2.8 |
| ## may           | 0.04 | 0.26  | 0.15  | 0.17 | 0.62  | 0.5097 | 0.490 | 1.6 |
| ## comes         | 0.17 | 0.40  | 0.49  | 0.09 | 0.22  | 0.4841 | 0.516 | 2.7 |
| ## within        | 0.24 | 0.74  | 0.17  | 0.08 | 0.08  | 0.6429 | 0.357 | 1.4 |
| ## land          | 0.39 | 0.13  | 0.26  | 0.03 | -0.08 | 0.2427 | 0.757 | 2.1 |
| ## thousands     | 0.89 | 0.15  | 0.07  | 0.16 | 0.07  | 0.8466 | 0.153 | 1.2 |
| ## never         | 0.19 | 0.55  | 0.37  | 0.04 | 0.30  | 0.5740 | 0.426 | 2.7 |
| ## political     | 0.21 | 0.55  | 0.31  | 0.26 | 0.40  | 0.6599 | 0.340 | 3.4 |
| ## give          | 0.18 | 0.65  | 0.43  | 0.16 | 0.45  | 0.8628 | 0.137 | 3.0 |
| ## needed        | 0.52 | 0.38  | 0.10  | 0.21 | 0.10  | 0.4764 | 0.524 | 2.4 |
| ## market        | 0.01 | 0.12  | 0.21  | 0.33 | 0.06  | 0.1735 | 0.827 | 2.1 |
| ## hope          | 0.35 | 0.30  | 0.21  | 0.02 | 0.27  | 0.3358 | 0.664 | 3.6 |
| ## action        | 0.94 | 0.07  | 0.11  | 0.05 | 0.03  | 0.9038 | 0.096 | 1.0 |
| ## needs         | 0.65 | 0.37  | 0.28  | 0.28 | 0.13  | 0.7310 | 0.269 | 2.6 |
| ## economy       | 0.09 | 0.20  | 0.27  | 0.63 | 0.26  | 0.5838 | 0.416 | 2.0 |
| ## huge          | 0.81 | 0.35  | 0.12  | 0.00 | 0.23  | 0.8444 | 0.156 | 1.6 |
| ## well          | 0.24 | 0.43  | 0.51  | 0.50 | 0.07  | 0.7660 | 0.234 | 3.4 |
| ## jobs          | 0.33 | 0.32  | 0.15  | 0.56 | 0.30  | 0.6349 | 0.365 | 3.2 |
| ## public        | 0.25 | 0.73  | 0.06  | 0.29 | 0.30  | 0.7636 | 0.236 | 2.0 |
| ## environmental | 0.80 | 0.05  | 0.04  | 0.08 | 0.01  | 0.6427 | 0.357 | 1.0 |
| ## communities   | 0.57 | 0.34  | 0.35  | 0.12 | -0.08 | 0.5791 | 0.421 | 2.5 |
| ## little        | 0.21 | 0.09  | 0.55  | 0.15 | 0.06  | 0.3791 | 0.621 | 1.5 |
| ## together      | 0.44 | 0.36  | 0.58  | 0.18 | 0.04  | 0.6915 | 0.309 | 2.8 |
| ## challenge     | 0.37 | 0.35  | 0.17  | 0.15 | 0.20  | 0.3476 | 0.652 | 3.4 |
| ## result        | 0.21 | 0.64  | 0.13  | 0.10 | 0.01  | 0.4853 | 0.515 | 1.3 |
| ## something     | 0.43 | 0.24  | 0.52  | 0.21 | 0.00  | 0.5536 | 0.446 | 2.7 |
| ## start         | 0.79 | 0.18  | 0.34  | 0.19 | 0.15  | 0.8348 | 0.165 | 1.7 |

|                |       |       |       |       |       |        |       |     |
|----------------|-------|-------|-------|-------|-------|--------|-------|-----|
| ## tax         | -0.06 | 0.17  | 0.17  | 0.87  | 0.10  | 0.8252 | 0.175 | 1.2 |
| ## leave       | 0.10  | 0.86  | 0.14  | 0.14  | 0.09  | 0.7969 | 0.203 | 1.2 |
| ## big         | 0.66  | 0.22  | 0.37  | 0.35  | 0.08  | 0.7474 | 0.253 | 2.5 |
| ## former      | 0.16  | 0.38  | 0.14  | 0.02  | 0.69  | 0.6668 | 0.333 | 1.8 |
| ## generation  | 0.77  | 0.15  | 0.03  | 0.41  | -0.02 | 0.7894 | 0.211 | 1.6 |
| ## level       | 0.40  | 0.11  | 0.02  | 0.05  | 0.02  | 0.1794 | 0.821 | 1.2 |
| ## fight       | 0.85  | 0.26  | 0.14  | 0.01  | 0.03  | 0.8140 | 0.186 | 1.2 |
| ## clear       | 0.16  | 0.76  | 0.20  | 0.11  | 0.27  | 0.7357 | 0.264 | 1.6 |
| ## looking     | 0.30  | 0.21  | 0.48  | 0.23  | 0.11  | 0.4287 | 0.571 | 2.8 |
| ## best        | 0.28  | 0.39  | 0.59  | 0.12  | 0.12  | 0.6106 | 0.389 | 2.4 |
| ## rise        | 0.70  | 0.04  | 0.02  | 0.21  | 0.01  | 0.5365 | 0.463 | 1.2 |
| ## article     | 0.25  | 0.43  | 0.12  | 0.08  | 0.32  | 0.3679 | 0.632 | 2.8 |
| ## guardian    | 0.85  | 0.22  | 0.16  | 0.04  | 0.11  | 0.8154 | 0.185 | 1.2 |
| ## newspapers  | 0.08  | 0.20  | 0.04  | 0.03  | 0.08  | 0.0559 | 0.944 | 1.7 |
| ## limited     | 0.07  | 0.26  | -0.04 | 0.02  | -0.01 | 0.0728 | 0.927 | 1.2 |
| ## document    | 0.02  | 0.34  | -0.01 | 0.21  | -0.06 | 0.1652 | 0.835 | 1.7 |
| ## grdn        | 0.11  | 0.14  | 0.01  | 0.05  | 0.05  | 0.0351 | 0.965 | 2.6 |
| ## ec          | -0.02 | 0.13  | -0.13 | 0.20  | 0.18  | 0.1055 | 0.895 | 3.5 |
| ## world's     | 0.65  | 0.03  | 0.06  | 0.07  | -0.02 | 0.4312 | 0.569 | 1.0 |
| ## biggest     | 0.84  | 0.19  | 0.12  | 0.16  | 0.02  | 0.7789 | 0.221 | 1.2 |
| ## countries   | 0.64  | 0.06  | 0.03  | 0.00  | 0.06  | 0.4118 | 0.588 | 1.0 |
| ## towards     | 0.36  | 0.38  | 0.38  | 0.19  | 0.31  | 0.5447 | 0.455 | 4.4 |
| ## group       | 0.55  | 0.15  | 0.17  | 0.02  | 0.18  | 0.3833 | 0.617 | 1.6 |
| ## said        | 0.67  | 0.52  | 0.15  | 0.13  | 0.32  | 0.8580 | 0.142 | 2.6 |
| ## bank        | 0.04  | 0.11  | 0.11  | 0.27  | 0.00  | 0.0956 | 0.904 | 1.7 |
| ## role        | 0.16  | 0.27  | 0.14  | 0.07  | 0.14  | 0.1441 | 0.856 | 3.0 |
| ## spending    | -0.06 | 0.31  | 0.05  | 0.43  | 0.03  | 0.2908 | 0.709 | 1.9 |
| ## conference  | -0.01 | 0.94  | -0.01 | -0.04 | -0.17 | 0.9121 | 0.088 | 1.1 |
| ## development | 0.03  | 0.04  | -0.02 | 0.05  | -0.05 | 0.0085 | 0.991 | 4.1 |
| ## greenhouse  | 0.60  | -0.03 | 0.01  | 0.02  | -0.01 | 0.3638 | 0.636 | 1.0 |
| ## emissions   | 0.74  | 0.05  | -0.02 | 0.06  | 0.05  | 0.5621 | 0.438 | 1.0 |
| ## agreement   | 0.43  | 0.32  | 0.06  | 0.09  | 0.29  | 0.3884 | 0.612 | 2.8 |
| ## united      | 0.36  | 0.42  | 0.11  | -0.04 | 0.21  | 0.3675 | 0.632 | 2.6 |
| ## nations     | 0.44  | 0.13  | 0.24  | 0.04  | -0.03 | 0.2720 | 0.728 | 1.8 |
| ## major       | 0.79  | 0.12  | 0.21  | 0.20  | 0.02  | 0.7263 | 0.274 | 1.3 |
| ## increase    | 0.23  | 0.12  | 0.05  | 0.67  | 0.06  | 0.5234 | 0.477 | 1.3 |
| ## renewable   | 0.71  | 0.05  | 0.01  | 0.15  | 0.05  | 0.5343 | 0.466 | 1.1 |
| ## green       | 0.25  | 0.20  | -0.05 | 0.11  | -0.04 | 0.1172 | 0.883 | 2.5 |
| ## sustainable | 0.34  | 0.04  | -0.09 | 0.19  | -0.04 | 0.1652 | 0.835 | 1.8 |
| ## growing     | 0.53  | 0.07  | 0.18  | 0.09  | 0.03  | 0.3251 | 0.675 | 1.4 |
| ## national    | 0.25  | 0.75  | 0.16  | 0.31  | -0.08 | 0.7455 | 0.255 | 1.7 |
| ## plans       | 0.44  | 0.60  | -0.03 | 0.15  | 0.24  | 0.6350 | 0.365 | 2.4 |
| ## john        | 0.01  | 0.68  | 0.25  | 0.21  | 0.19  | 0.6002 | 0.400 | 1.7 |
| ## director    | 0.07  | 0.05  | -0.10 | 0.16  | 0.03  | 0.0447 | 0.955 | 2.4 |
| ## million     | 0.58  | 0.15  | 0.24  | 0.35  | 0.01  | 0.5395 | 0.460 | 2.2 |
| ## taken       | 0.69  | 0.36  | 0.16  | 0.18  | 0.31  | 0.7626 | 0.237 | 2.2 |
| ## bn          | 0.18  | 0.26  | -0.01 | 0.25  | 0.09  | 0.1684 | 0.832 | 3.0 |
| ## across      | 0.91  | 0.15  | 0.24  | 0.11  | 0.06  | 0.9198 | 0.080 | 1.2 |
| ## fund        | 0.06  | 0.09  | -0.04 | 0.43  | 0.03  | 0.1963 | 0.804 | 1.2 |
| ## enough      | 0.41  | 0.20  | 0.26  | 0.05  | 0.12  | 0.2895 | 0.711 | 2.5 |
| ## target      | 0.17  | 0.19  | -0.02 | 0.20  | 0.21  | 0.1488 | 0.851 | 4.0 |
| ## use         | 0.50  | 0.54  | 0.30  | 0.19  | 0.12  | 0.6765 | 0.324 | 2.9 |
| ## less        | 0.25  | 0.36  | 0.05  | 0.43  | 0.01  | 0.3754 | 0.625 | 2.6 |
| ## education   | 0.24  | 0.58  | 0.05  | 0.32  | -0.10 | 0.5075 | 0.493 | 2.1 |

|                |       |       |       |       |       |        |       |     |
|----------------|-------|-------|-------|-------|-------|--------|-------|-----|
| ## impacts     | 0.70  | 0.00  | -0.04 | 0.03  | 0.04  | 0.4949 | 0.505 | 1.0 |
| ## strong      | 0.20  | 0.29  | 0.55  | 0.37  | 0.05  | 0.5671 | 0.433 | 2.7 |
| ## end         | 0.29  | 0.66  | 0.23  | 0.32  | 0.26  | 0.7508 | 0.249 | 2.6 |
| ## past        | 0.66  | 0.32  | 0.26  | 0.10  | -0.12 | 0.6410 | 0.359 | 1.9 |
| ## already     | 0.81  | 0.20  | 0.25  | 0.15  | 0.09  | 0.7822 | 0.218 | 1.4 |
| ## away        | 0.52  | 0.35  | 0.29  | 0.18  | 0.20  | 0.5437 | 0.456 | 3.1 |
| ## used        | 0.27  | 0.47  | 0.17  | 0.32  | 0.26  | 0.4915 | 0.509 | 3.4 |
| ## find        | 0.60  | 0.31  | 0.45  | 0.01  | 0.07  | 0.6623 | 0.338 | 2.4 |
| ## industrial  | 0.27  | 0.31  | 0.08  | 0.03  | 0.05  | 0.1773 | 0.823 | 2.2 |
| ## data        | 0.18  | -0.01 | 0.01  | 0.05  | -0.01 | 0.0369 | 0.963 | 1.2 |
| ## led         | 0.49  | 0.40  | 0.16  | 0.00  | 0.01  | 0.4292 | 0.571 | 2.2 |
| ## rather      | 0.30  | 0.35  | 0.41  | 0.28  | 0.08  | 0.4603 | 0.540 | 3.8 |
| ## says        | 0.06  | 0.75  | 0.13  | 0.12  | 0.47  | 0.8241 | 0.176 | 1.8 |
| ## due         | 0.44  | 0.42  | 0.09  | 0.25  | 0.26  | 0.5093 | 0.491 | 3.4 |
| ## co          | 0.52  | 0.06  | 0.01  | 0.03  | 0.02  | 0.2708 | 0.729 | 1.0 |
| ## higher      | 0.21  | 0.18  | 0.03  | 0.50  | 0.28  | 0.4132 | 0.587 | 2.3 |
| ## summit      | 0.70  | 0.05  | -0.01 | -0.02 | 0.10  | 0.5012 | 0.499 | 1.1 |
| ## extreme     | 0.44  | 0.23  | 0.12  | 0.01  | 0.13  | 0.2761 | 0.724 | 1.9 |
| ## weather     | 0.44  | -0.04 | 0.16  | -0.01 | -0.05 | 0.2268 | 0.773 | 1.3 |
| ## food        | 0.13  | 0.02  | 0.23  | 0.06  | -0.03 | 0.0747 | 0.925 | 1.8 |
| ## industry    | 0.55  | 0.12  | 0.05  | 0.36  | 0.14  | 0.4745 | 0.525 | 2.0 |
| ## even        | 0.64  | 0.21  | 0.37  | 0.24  | 0.13  | 0.6626 | 0.337 | 2.3 |
| ## better      | 0.26  | 0.68  | 0.40  | 0.25  | 0.09  | 0.7591 | 0.241 | 2.3 |
| ## per         | 0.23  | 0.00  | 0.04  | 0.33  | 0.06  | 0.1644 | 0.836 | 1.9 |
| ## cent        | -0.02 | -0.03 | -0.01 | 0.27  | 0.03  | 0.0729 | 0.927 | 1.1 |
| ## changes     | 0.38  | 0.22  | 0.04  | 0.40  | 0.03  | 0.3503 | 0.650 | 2.6 |
| ## short       | 0.58  | 0.36  | 0.29  | 0.15  | 0.11  | 0.5831 | 0.417 | 2.5 |
| ## term        | 0.13  | 0.25  | 0.29  | 0.55  | 0.18  | 0.5049 | 0.495 | 2.4 |
| ## net         | 0.19  | 0.17  | 0.06  | 0.09  | 0.15  | 0.1032 | 0.897 | 3.6 |
| ## rate        | 0.11  | 0.08  | 0.35  | 0.71  | -0.04 | 0.6512 | 0.349 | 1.5 |
| ## working     | 0.07  | 0.66  | 0.24  | 0.11  | -0.29 | 0.5961 | 0.404 | 1.7 |
| ## given       | 0.42  | 0.44  | 0.27  | 0.41  | 0.30  | 0.7060 | 0.294 | 4.4 |
| ## whether     | 0.08  | 0.72  | 0.21  | 0.03  | 0.42  | 0.7532 | 0.247 | 1.8 |
| ## think       | 0.25  | 0.45  | 0.56  | 0.07  | 0.19  | 0.6250 | 0.375 | 2.6 |
| ## study       | 0.12  | -0.01 | -0.01 | 0.12  | -0.03 | 0.0304 | 0.970 | 2.2 |
| ## workers     | 0.90  | 0.28  | 0.10  | 0.12  | -0.01 | 0.9130 | 0.087 | 1.3 |
| ## uk          | 0.11  | 0.38  | 0.09  | 0.21  | 0.73  | 0.7441 | 0.256 | 1.8 |
| ## call        | 0.52  | 0.54  | 0.17  | -0.03 | 0.27  | 0.6710 | 0.329 | 2.7 |
| ## uk's        | -0.04 | 0.18  | -0.07 | 0.21  | 0.54  | 0.3719 | 0.628 | 1.6 |
| ## fact        | 0.41  | 0.27  | 0.34  | 0.12  | 0.19  | 0.4112 | 0.589 | 3.5 |
| ## number      | 0.48  | 0.51  | 0.18  | 0.23  | 0.24  | 0.6285 | 0.372 | 3.1 |
| ## crisis      | 0.93  | 0.07  | 0.08  | 0.04  | 0.03  | 0.8785 | 0.121 | 1.0 |
| ## able        | 0.17  | 0.64  | 0.40  | 0.22  | 0.22  | 0.6990 | 0.301 | 2.4 |
| ## politicians | 0.77  | 0.23  | 0.10  | 0.05  | 0.02  | 0.6646 | 0.335 | 1.2 |
| ## question    | 0.21  | 0.62  | 0.29  | 0.06  | 0.43  | 0.6979 | 0.302 | 2.6 |
| ## possible    | 0.12  | 0.69  | 0.29  | 0.02  | 0.27  | 0.6379 | 0.362 | 1.7 |
| ## plan        | 0.21  | 0.61  | 0.26  | 0.20  | 0.22  | 0.5713 | 0.429 | 2.2 |
| ## economic    | 0.00  | 0.08  | 0.24  | 0.53  | 0.03  | 0.3434 | 0.657 | 1.4 |
| ## longer      | 0.21  | 0.38  | 0.23  | 0.25  | 0.52  | 0.5724 | 0.428 | 3.2 |
| ## debate      | -0.03 | 0.58  | 0.10  | -0.07 | 0.56  | 0.6696 | 0.330 | 2.1 |
| ## actually    | 0.31  | 0.49  | 0.44  | 0.06  | 0.23  | 0.5807 | 0.419 | 3.2 |
| ## asked       | 0.68  | 0.52  | 0.15  | 0.01  | 0.16  | 0.7867 | 0.213 | 2.1 |
| ## students    | 0.94  | 0.06  | 0.05  | 0.01  | -0.01 | 0.8826 | 0.117 | 1.0 |
| ## low         | 0.24  | 0.04  | 0.20  | 0.45  | 0.04  | 0.3008 | 0.699 | 2.0 |

|              |       |      |       |       |       |        |       |     |
|--------------|-------|------|-------|-------|-------|--------|-------|-----|
| ## mark      | 0.52  | 0.41 | 0.14  | 0.20  | 0.02  | 0.5046 | 0.495 | 2.4 |
| ## example   | 0.17  | 0.27 | 0.20  | 0.22  | 0.27  | 0.2655 | 0.735 | 4.5 |
| ## community | 0.20  | 0.17 | 0.33  | 0.04  | 0.04  | 0.1813 | 0.819 | 2.3 |
| ## address   | 0.54  | 0.24 | 0.22  | 0.11  | 0.08  | 0.4163 | 0.584 | 1.9 |
| ## case      | 0.11  | 0.45 | 0.34  | 0.15  | 0.30  | 0.4425 | 0.558 | 3.1 |
| ## care      | 0.20  | 0.68 | 0.22  | 0.11  | -0.22 | 0.6144 | 0.386 | 1.7 |
| ## today     | 0.82  | 0.34 | 0.22  | 0.24  | 0.15  | 0.9174 | 0.083 | 1.8 |
| ## children  | 0.81  | 0.12 | 0.17  | 0.14  | -0.02 | 0.7173 | 0.283 | 1.2 |
| ## five      | 0.34  | 0.44 | 0.41  | 0.34  | 0.00  | 0.5969 | 0.403 | 3.8 |
| ## society   | 0.15  | 0.48 | 0.17  | 0.19  | 0.30  | 0.4061 | 0.594 | 2.7 |
| ## risk      | 0.21  | 0.15 | 0.02  | 0.07  | 0.22  | 0.1189 | 0.881 | 3.0 |
| ## shows     | 0.49  | 0.35 | 0.08  | 0.11  | 0.29  | 0.4711 | 0.529 | 2.7 |
| ## services  | 0.01  | 0.57 | 0.44  | 0.32  | -0.10 | 0.6332 | 0.367 | 2.6 |
| ## however   | 0.41  | 0.20 | 0.09  | 0.53  | 0.07  | 0.5028 | 0.497 | 2.3 |
| ## strike    | 0.98  | 0.04 | 0.06  | 0.01  | 0.01  | 0.9664 | 0.034 | 1.0 |
| ## threat    | 0.54  | 0.16 | 0.32  | 0.13  | 0.08  | 0.4372 | 0.563 | 2.0 |
| ## south     | 0.77  | 0.20 | 0.33  | 0.04  | 0.02  | 0.7408 | 0.259 | 1.5 |
| ## north     | 0.30  | 0.28 | 0.17  | 0.22  | 0.16  | 0.2689 | 0.731 | 4.1 |
| ## different | 0.23  | 0.58 | 0.26  | 0.02  | 0.07  | 0.4605 | 0.539 | 1.8 |
| ## become    | 0.32  | 0.18 | 0.23  | 0.25  | 0.11  | 0.2579 | 0.742 | 3.7 |
| ## report    | 0.09  | 0.20 | -0.09 | 0.19  | 0.39  | 0.2476 | 0.752 | 2.3 |
| ## although  | 0.08  | 0.53 | 0.21  | 0.22  | 0.26  | 0.4522 | 0.548 | 2.3 |
| ## show      | 0.50  | 0.38 | 0.35  | 0.11  | 0.11  | 0.5482 | 0.452 | 3.0 |
| ## un        | 0.45  | 0.10 | 0.06  | -0.05 | 0.07  | 0.2240 | 0.776 | 1.2 |
| ## face      | 0.15  | 0.46 | 0.19  | 0.19  | 0.32  | 0.4017 | 0.598 | 2.8 |
| ## yet       | 0.50  | 0.34 | 0.32  | 0.22  | 0.14  | 0.5384 | 0.462 | 3.2 |
| ## cost      | 0.16  | 0.34 | 0.05  | 0.20  | 0.31  | 0.2744 | 0.726 | 3.2 |
| ## pollution | 0.56  | 0.01 | -0.01 | 0.07  | 0.07  | 0.3181 | 0.682 | 1.1 |
| ## air       | 0.56  | 0.03 | 0.05  | 0.14  | 0.08  | 0.3477 | 0.652 | 1.2 |
| ## often     | 0.10  | 0.32 | 0.40  | 0.10  | -0.01 | 0.2840 | 0.716 | 2.2 |
| ## budget    | -0.02 | 0.02 | -0.03 | 0.90  | 0.00  | 0.8062 | 0.194 | 1.0 |
| ## london    | 0.51  | 0.12 | 0.24  | 0.08  | 0.13  | 0.3584 | 0.642 | 1.7 |
| ## among     | 0.60  | 0.25 | 0.17  | 0.12  | -0.01 | 0.4712 | 0.529 | 1.6 |
| ## cause     | 0.31  | 0.15 | 0.15  | 0.05  | 0.23  | 0.1914 | 0.809 | 3.0 |
| ## making    | 0.80  | 0.31 | 0.22  | 0.19  | 0.15  | 0.8539 | 0.146 | 1.7 |
| ## might     | 0.23  | 0.52 | 0.34  | 0.23  | 0.02  | 0.4929 | 0.507 | 2.6 |
| ## reduce    | 0.67  | 0.17 | 0.15  | 0.20  | -0.08 | 0.5403 | 0.460 | 1.5 |
| ## schools   | 0.27  | 0.52 | -0.06 | 0.34  | -0.05 | 0.4663 | 0.534 | 2.4 |
| ## lead      | 0.43  | 0.54 | 0.34  | 0.06  | 0.12  | 0.6138 | 0.386 | 2.8 |
| ## believe   | 0.50  | 0.51 | 0.22  | -0.05 | 0.29  | 0.6451 | 0.355 | 3.0 |
| ## australia | 0.91  | 0.05 | 0.23  | 0.08  | -0.02 | 0.8986 | 0.101 | 1.2 |
| ## issues    | 0.56  | 0.25 | 0.26  | 0.08  | 0.29  | 0.5386 | 0.461 | 2.5 |
| ## social    | 0.41  | 0.50 | 0.01  | 0.10  | 0.12  | 0.4460 | 0.554 | 2.1 |
| ## life      | 0.14  | 0.31 | 0.62  | 0.04  | 0.15  | 0.5254 | 0.475 | 1.7 |
| ## caused    | 0.40  | 0.05 | 0.03  | 0.08  | -0.03 | 0.1719 | 0.828 | 1.1 |
| ## jul       | 0.06  | 0.25 | 0.11  | 0.03  | 0.88  | 0.8469 | 0.153 | 1.2 |
| ## home      | 0.39  | 0.27 | 0.62  | 0.34  | -0.03 | 0.7219 | 0.278 | 2.8 |
| ## record    | 0.09  | 0.11 | 0.13  | 0.30  | 0.16  | 0.1560 | 0.844 | 2.6 |
| ## history   | 0.24  | 0.17 | 0.51  | 0.09  | 0.12  | 0.3676 | 0.632 | 1.9 |
| ## ahead     | 0.44  | 0.55 | 0.35  | 0.28  | 0.14  | 0.7272 | 0.273 | 3.4 |
| ## nature    | 0.21  | 0.01 | 0.20  | 0.02  | 0.01  | 0.0820 | 0.918 | 2.0 |
| ## activists | 0.91  | 0.12 | 0.06  | -0.01 | 0.02  | 0.8516 | 0.148 | 1.0 |
| ## called    | 0.69  | 0.28 | 0.16  | 0.21  | 0.27  | 0.7035 | 0.296 | 2.0 |
| ## city      | 0.95  | 0.06 | 0.07  | 0.07  | 0.03  | 0.9234 | 0.077 | 1.0 |

|                 |       |       |       |       |       |        |       |     |
|-----------------|-------|-------|-------|-------|-------|--------|-------|-----|
| ## ago          | 0.35  | 0.21  | 0.34  | 0.43  | 0.19  | 0.4988 | 0.501 | 3.9 |
| ## using        | 0.19  | 0.27  | 0.28  | 0.07  | 0.13  | 0.2126 | 0.787 | 3.4 |
| ## remain       | -0.04 | 0.95  | -0.02 | -0.04 | -0.09 | 0.9221 | 0.078 | 1.0 |
| ## millions     | 0.66  | 0.29  | 0.10  | 0.02  | -0.06 | 0.5278 | 0.472 | 1.5 |
| ## key          | 0.20  | 0.76  | 0.11  | 0.03  | -0.11 | 0.6400 | 0.360 | 1.2 |
| ## european     | 0.32  | 0.46  | 0.03  | 0.13  | 0.36  | 0.4622 | 0.538 | 2.9 |
| ## extinction   | 0.30  | 0.01  | 0.25  | -0.10 | -0.05 | 0.1681 | 0.832 | 2.2 |
| ## event        | 0.49  | 0.32  | 0.18  | 0.15  | 0.39  | 0.5499 | 0.450 | 3.3 |
| ## amazon       | 0.97  | 0.07  | 0.06  | 0.01  | 0.04  | 0.9426 | 0.057 | 1.0 |
| ## growth       | -0.02 | 0.02  | 0.23  | 0.57  | -0.03 | 0.3792 | 0.621 | 1.3 |
| ## china        | 0.26  | 0.03  | 0.00  | 0.12  | 0.10  | 0.0919 | 0.908 | 1.8 |
| ## sea          | 0.60  | -0.02 | 0.06  | 0.03  | -0.03 | 0.3629 | 0.637 | 1.0 |
| ## page         | 0.12  | 0.86  | 0.09  | -0.04 | 0.43  | 0.9433 | 0.057 | 1.5 |
| ## members      | 0.07  | 0.87  | 0.18  | 0.02  | 0.06  | 0.7960 | 0.204 | 1.1 |
| ## seen         | 0.52  | 0.46  | 0.32  | 0.00  | 0.18  | 0.6127 | 0.387 | 3.0 |
| ## politics     | -0.03 | 0.74  | 0.09  | 0.06  | 0.57  | 0.8934 | 0.107 | 1.9 |
| ## july         | -0.04 | 0.24  | 0.26  | 0.09  | 0.81  | 0.7975 | 0.202 | 1.4 |
| ## three        | 0.17  | 0.49  | 0.44  | 0.34  | 0.22  | 0.6228 | 0.377 | 3.5 |
| ## act          | 0.58  | 0.32  | 0.30  | 0.16  | 0.17  | 0.5885 | 0.411 | 2.5 |
| ## jeremy       | -0.01 | 0.91  | 0.00  | 0.14  | 0.24  | 0.9057 | 0.094 | 1.2 |
| ## outside      | 0.75  | 0.39  | 0.24  | 0.01  | 0.08  | 0.7722 | 0.228 | 1.8 |
| ## risks        | 0.06  | 0.02  | -0.08 | 0.25  | 0.26  | 0.1383 | 0.862 | 2.4 |
| ## decision     | 0.03  | 0.87  | 0.08  | -0.02 | 0.21  | 0.8154 | 0.185 | 1.1 |
| ## britain      | 0.05  | 0.23  | 0.09  | 0.33  | 0.42  | 0.3492 | 0.651 | 2.6 |
| ## meet         | 0.48  | 0.26  | 0.57  | 0.14  | 0.19  | 0.6856 | 0.314 | 2.8 |
| ## british      | -0.01 | 0.28  | 0.23  | 0.10  | 0.48  | 0.3733 | 0.627 | 2.2 |
| ## europe       | 0.45  | 0.57  | 0.03  | 0.17  | 0.04  | 0.5559 | 0.444 | 2.1 |
| ## course       | 0.36  | 0.58  | 0.50  | 0.27  | -0.02 | 0.7927 | 0.207 | 3.1 |
| ## government   | 0.18  | 0.52  | 0.47  | 0.35  | 0.25  | 0.7047 | 0.295 | 3.6 |
| ## eu           | -0.02 | 0.60  | 0.02  | 0.20  | 0.55  | 0.7032 | 0.297 | 2.2 |
| ## likely       | 0.31  | 0.49  | -0.01 | 0.15  | 0.13  | 0.3797 | 0.620 | 2.1 |
| ## committee    | 0.05  | 0.50  | -0.08 | 0.06  | 0.40  | 0.4216 | 0.578 | 2.0 |
| ## small        | 0.52  | 0.06  | 0.19  | 0.51  | -0.06 | 0.5701 | 0.430 | 2.3 |
| ## boris        | -0.03 | 0.57  | 0.19  | 0.04  | 0.51  | 0.6266 | 0.373 | 2.2 |
| ## johnson      | -0.04 | 0.57  | 0.18  | -0.02 | 0.68  | 0.8276 | 0.172 | 2.1 |
| ## conservative | -0.04 | 0.38  | 0.18  | 0.36  | 0.75  | 0.8659 | 0.134 | 2.2 |
| ## farmers      | 0.01  | 0.00  | 0.17  | 0.07  | 0.02  | 0.0332 | 0.967 | 1.4 |
| ## events       | 0.88  | 0.10  | 0.13  | 0.02  | 0.05  | 0.8034 | 0.197 | 1.1 |
| ## based        | 0.24  | 0.12  | 0.32  | 0.17  | 0.07  | 0.2081 | 0.792 | 2.9 |
| ## got          | 0.40  | 0.37  | 0.64  | 0.14  | 0.19  | 0.7594 | 0.241 | 2.7 |
| ## added        | 0.32  | 0.27  | 0.18  | 0.00  | 0.37  | 0.3406 | 0.659 | 3.3 |
| ## local        | 0.73  | 0.29  | 0.06  | 0.22  | -0.10 | 0.6733 | 0.327 | 1.6 |
| ## trees        | 0.17  | -0.03 | 0.10  | 0.03  | -0.04 | 0.0414 | 0.959 | 1.9 |
| ## expected     | 0.75  | 0.23  | 0.07  | 0.43  | 0.20  | 0.8430 | 0.157 | 2.0 |
| ## cuts         | -0.04 | 0.34  | 0.19  | 0.73  | 0.00  | 0.6866 | 0.313 | 1.6 |
| ## george       | 0.01  | 0.05  | 0.11  | 0.82  | -0.01 | 0.6851 | 0.315 | 1.0 |
| ## law          | 0.03  | 0.62  | 0.22  | 0.00  | 0.40  | 0.5902 | 0.410 | 2.0 |
| ## warned       | -0.05 | 0.56  | -0.07 | 0.21  | 0.05  | 0.3636 | 0.636 | 1.3 |
| ## support      | 0.51  | 0.66  | 0.25  | 0.17  | -0.01 | 0.7953 | 0.205 | 2.4 |
| ## businesses   | 0.48  | 0.10  | 0.28  | 0.45  | 0.04  | 0.5277 | 0.472 | 2.7 |
| ## labour's     | -0.06 | 0.84  | -0.02 | 0.05  | 0.34  | 0.8244 | 0.176 | 1.3 |
| ## shadow       | 0.01  | 0.87  | -0.07 | 0.14  | -0.05 | 0.7850 | 0.215 | 1.1 |
| ## government's | 0.22  | 0.17  | 0.46  | 0.43  | 0.10  | 0.4805 | 0.520 | 2.9 |
| ## investment   | 0.09  | 0.21  | 0.02  | 0.27  | 0.12  | 0.1371 | 0.863 | 2.6 |

|               |       |      |       |       |       |        |       |     |
|---------------|-------|------|-------|-------|-------|--------|-------|-----|
| ## school     | 0.91  | 0.10 | 0.10  | 0.12  | -0.02 | 0.8639 | 0.136 | 1.1 |
| ## getting    | 0.54  | 0.47 | 0.33  | 0.09  | 0.34  | 0.7458 | 0.254 | 3.5 |
| ## second     | 0.38  | 0.75 | 0.21  | -0.01 | 0.25  | 0.8054 | 0.195 | 1.9 |
| ## tory       | -0.07 | 0.42 | 0.14  | 0.20  | 0.75  | 0.7957 | 0.204 | 1.9 |
| ## leader     | 0.28  | 0.75 | 0.14  | 0.32  | 0.20  | 0.8045 | 0.195 | 1.9 |
| ## full       | 0.25  | 0.70 | 0.24  | 0.21  | 0.27  | 0.7282 | 0.272 | 2.1 |
| ## party      | 0.01  | 0.93 | 0.02  | 0.02  | 0.16  | 0.8827 | 0.117 | 1.1 |
| ## chief      | 0.21  | 0.41 | 0.02  | 0.34  | 0.07  | 0.3321 | 0.668 | 2.6 |
| ## mps        | -0.04 | 0.52 | 0.15  | 0.27  | 0.70  | 0.8693 | 0.131 | 2.3 |
| ## pm         | 0.36  | 0.63 | 0.40  | 0.13  | 0.35  | 0.8286 | 0.171 | 3.2 |
| ## leaders    | 0.47  | 0.54 | 0.03  | -0.05 | -0.02 | 0.5157 | 0.484 | 2.0 |
| ## labour     | -0.04 | 0.98 | 0.00  | 0.03  | 0.07  | 0.9585 | 0.042 | 1.0 |
| ## announced  | 0.57  | 0.56 | 0.13  | 0.31  | 0.17  | 0.7834 | 0.217 | 2.8 |
| ## union      | 0.18  | 0.89 | 0.01  | 0.06  | -0.04 | 0.8347 | 0.165 | 1.1 |
| ## speaking   | 0.20  | 0.82 | 0.10  | 0.10  | 0.14  | 0.7493 | 0.251 | 1.2 |
| ## feel       | 0.71  | 0.14 | 0.39  | 0.01  | 0.02  | 0.6823 | 0.318 | 1.7 |
| ## wants      | 0.07  | 0.68 | 0.31  | 0.23  | 0.33  | 0.7327 | 0.267 | 2.2 |
| ## ireland    | -0.05 | 0.24 | 0.08  | -0.07 | 0.80  | 0.7182 | 0.282 | 1.2 |
| ## ltd        | -0.04 | 0.09 | 0.00  | 0.00  | -0.03 | 0.0109 | 0.989 | 1.6 |
| ## chancellor | -0.01 | 0.14 | -0.04 | 0.89  | 0.05  | 0.8125 | 0.188 | 1.1 |
| ## mcdonnell  | -0.05 | 0.67 | -0.03 | 0.09  | -0.15 | 0.4803 | 0.520 | 1.2 |
| ## protests   | 0.86  | 0.03 | 0.06  | -0.03 | 0.02  | 0.7523 | 0.248 | 1.0 |
| ## groups     | 0.42  | 0.11 | 0.21  | -0.05 | 0.20  | 0.2740 | 0.726 | 2.2 |
| ## house      | 0.04  | 0.32 | 0.49  | 0.40  | 0.32  | 0.5997 | 0.400 | 3.5 |
| ## statement  | 0.01  | 0.84 | 0.08  | 0.24  | 0.13  | 0.7875 | 0.213 | 1.2 |
| ## protest    | 0.95  | 0.04 | 0.09  | -0.01 | 0.04  | 0.9156 | 0.084 | 1.0 |
| ## court      | 0.02  | 0.47 | 0.17  | -0.03 | 0.13  | 0.2703 | 0.730 | 1.4 |
| ## photograph | 0.20  | 0.40 | 0.53  | 0.11  | 0.22  | 0.5385 | 0.461 | 2.7 |
| ## stage      | 0.17  | 0.00 | 0.64  | -0.04 | -0.03 | 0.4477 | 0.552 | 1.2 |
| ## bring      | 0.45  | 0.46 | 0.54  | 0.15  | 0.07  | 0.7304 | 0.270 | 3.1 |
| ## march      | 0.75  | 0.04 | 0.13  | 0.36  | 0.07  | 0.7180 | 0.282 | 1.5 |
| ## morning    | 0.44  | 0.65 | 0.41  | 0.17  | 0.15  | 0.8362 | 0.164 | 2.8 |
| ## position   | -0.02 | 0.91 | 0.13  | 0.01  | 0.12  | 0.8531 | 0.147 | 1.1 |
| ## secretary  | 0.02  | 0.74 | -0.01 | 0.16  | 0.45  | 0.7682 | 0.232 | 1.8 |
| ## prime      | 0.09  | 0.54 | 0.37  | 0.13  | 0.43  | 0.6411 | 0.359 | 2.9 |
| ## mr         | -0.01 | 0.05 | 0.11  | 0.61  | 0.11  | 0.3935 | 0.607 | 1.1 |
| ## corbyn     | 0.00  | 0.90 | -0.03 | 0.22  | 0.03  | 0.8623 | 0.138 | 1.1 |
| ## parliament | 0.01  | 0.52 | 0.47  | 0.16  | 0.33  | 0.6344 | 0.366 | 2.9 |
| ## vote       | -0.02 | 0.90 | 0.09  | 0.00  | 0.23  | 0.8708 | 0.129 | 1.2 |
| ## minister   | 0.20  | 0.58 | 0.35  | 0.09  | 0.50  | 0.7530 | 0.247 | 3.0 |
| ## osborne    | -0.03 | 0.02 | -0.04 | 0.87  | 0.00  | 0.7564 | 0.244 | 1.0 |
| ## days       | 0.27  | 0.40 | 0.35  | 0.39  | 0.26  | 0.5738 | 0.426 | 4.5 |
| ## northern   | -0.03 | 0.25 | 0.09  | 0.03  | 0.81  | 0.7328 | 0.267 | 1.2 |
| ## hunt       | -0.04 | 0.22 | 0.06  | -0.02 | 0.84  | 0.7507 | 0.249 | 1.2 |
| ## emergency  | 0.67  | 0.15 | 0.13  | -0.03 | 0.03  | 0.4975 | 0.503 | 1.2 |
| ## earlier    | 0.68  | 0.47 | 0.22  | 0.20  | 0.05  | 0.7623 | 0.238 | 2.2 |
| ## coming     | 0.75  | 0.32 | 0.31  | 0.20  | 0.22  | 0.8501 | 0.150 | 2.1 |
| ## executive  | 0.04  | 0.58 | -0.05 | 0.06  | 0.43  | 0.5334 | 0.467 | 1.9 |
| ## general    | 0.13  | 0.66 | 0.25  | 0.04  | 0.21  | 0.5570 | 0.443 | 1.6 |
| ## month      | 0.60  | 0.14 | 0.17  | 0.10  | 0.24  | 0.4733 | 0.527 | 1.7 |
| ## leadership | -0.02 | 0.69 | 0.10  | 0.12  | 0.46  | 0.7112 | 0.289 | 1.9 |
| ## ate        | -0.03 | 0.02 | -0.02 | 0.81  | 0.03  | 0.6642 | 0.336 | 1.0 |
| ## referendum | -0.06 | 0.89 | -0.04 | 0.05  | 0.16  | 0.8276 | 0.172 | 1.1 |
| ## theresa    | -0.06 | 0.27 | 0.12  | 0.14  | 0.78  | 0.7216 | 0.278 | 1.4 |

```

## brexit          -0.08  0.81  0.07  0.07  0.44  0.8684  0.132  1.6
## twitter.com     0.87  0.29  0.23  0.09  0.18  0.9365  0.063  1.5
## hashtag         0.95  0.10  0.16  0.08  0.07  0.9563  0.044  1.1
## src             0.95  0.10  0.16  0.08  0.07  0.9563  0.044  1.1
## hash            0.95  0.10  0.16  0.08  0.07  0.9563  0.044  1.1
## pic.twitter.com 0.95  0.14  0.17  0.08  0.07  0.9595  0.041  1.1
## t.co            0.89  0.25  0.21  0.11  0.16  0.9358  0.064  1.4
## join            0.96  0.09  0.09  0.02  0.10  0.9391  0.061  1.1
## strikes         0.97  0.04  0.06  0.03  0.01  0.9525  0.048  1.0
## block           -0.03  0.72  0.45  0.09  0.32  0.8220  0.178  2.2
## september       0.86  0.43  0.08 -0.01  0.00  0.9303  0.070  1.5
## rights          0.09  0.49  0.19 -0.09  0.58  0.6377  0.362  2.3
## pride           0.05 -0.01  0.21 -0.05  0.10  0.0577  0.942  1.7
## ef              0.06  0.12  0.18 -0.11  0.06  0.0666  0.933  3.1
## supreme         -0.02  0.48  0.16 -0.04  0.12  0.2697  0.730  1.4
## rebellion       0.39  0.02  0.22 -0.10 -0.05  0.2151  0.785  1.8
## greta           0.90  0.03  0.11 -0.02 -0.01  0.8183  0.182  1.0
## thunberg        0.82  0.02  0.11 -0.03 -0.01  0.6928  0.307  1.0
## glastonbury     -0.02 -0.03  0.56 -0.08 -0.05  0.3216  0.678  1.1
## bst             0.66  0.50  0.46  0.04  0.20  0.9373  0.063  3.0
## updated         0.71  0.42  0.48  0.03  0.09  0.9270  0.073  2.5
## twsrc           0.87  0.29  0.24  0.01  0.19  0.9392  0.061  1.5
## etfw            0.87  0.30  0.24  0.01  0.19  0.9390  0.061  1.5
## timeupdated     -0.02  0.68  0.55  0.09  0.14  0.7883  0.212  2.1
## with:block      0.14  0.87  0.08 -0.03  0.40  0.9475  0.052  1.5
## mrs             -0.02  0.03  0.12 -0.01  0.04  0.0178  0.982  1.3
## #climatestrike  0.98  0.04  0.06  0.02  0.01  0.9635  0.036  1.0
## climatestrike   0.98  0.04  0.06  0.02  0.01  0.9636  0.036  1.0
##
##
##              RC1  RC2  RC5  RC3  RC4
## SS loadings    119.12 85.71 34.15 27.25 26.81
## Proportion Var   0.24  0.17  0.07  0.05  0.05
## Cumulative Var   0.24  0.41  0.48  0.53  0.59
## Proportion Explained 0.41  0.29  0.12  0.09  0.09
## Cumulative Proportion 0.41  0.70  0.82  0.91  1.00
##
## Mean item complexity = 2.1
## Test of the hypothesis that 5 components are sufficient.
##
## The root mean square of the residuals (RMSR) is 0.05
## with the empirical chi square 184766.3 with prob < 0
##
## Fit based upon off diagonal values = 0.99

```

We also applied the `principal()` function to the stemmed tokens.

```
principal(as.matrix(tok_stem_tfidf_dfm), nfactors=5, rotate="varimax")
```

```

## Warning in cor.smooth(r): Matrix was not positive definite, smoothing was
## done

## The determinant of the smoothed correlation was zero.
## This means the objective function is not defined.
## Chi square is based upon observed residuals.

## The determinant of the smoothed correlation was zero.

```



```

## This means the objective function is not defined for the null model either.
## The Chi square is thus based upon observed correlations.

## Warning in principal(as.matrix(tok_stem_tfidf_dfm), nfactors = 5, rotate
## = "varimax"): The matrix is not positive semi-definite, scores found from
## Structure loadings

## Principal Components Analysis
## Call: principal(r = as.matrix(tok_stem_tfidf_dfm), nfactors = 5, rotate = "varimax")
## Standardized loadings (pattern matrix) based upon correlation matrix
##
##          RC2  RC1  RC5  RC3  RC4  h2  u2 com
## can      0.66 0.52 0.28 0.12 0.17 0.829 0.171 2.5
## get      0.46 0.64 0.31 0.31 0.21 0.858 0.142 3.2
## fossil   0.82 0.02 0.01 0.00 -0.01 0.670 0.330 1.0
## fuel     0.79 0.02 0.00 0.14 -0.01 0.650 0.350 1.1
## compani  0.66 0.09 0.07 0.24 -0.01 0.504 0.496 1.3
## right    0.35 0.71 0.20 0.08 0.41 0.839 0.161 2.4
## thing    0.47 0.44 0.37 0.18 0.18 0.621 0.379 3.6
## lot      0.61 0.33 0.28 0.15 0.09 0.588 0.412 2.2
## left     0.62 0.43 0.12 0.16 0.11 0.613 0.387 2.1
## us       0.82 0.30 0.24 0.04 0.25 0.873 0.127 1.7
## one      0.57 0.57 0.26 0.24 0.27 0.848 0.152 3.2
## realli   0.76 0.26 0.17 0.22 0.13 0.736 0.264 1.6
## like     0.54 0.42 0.33 0.17 0.13 0.623 0.377 3.0
## talk     0.31 0.53 0.35 0.16 0.37 0.664 0.336 3.6
## money    0.07 0.26 0.22 0.52 -0.03 0.394 0.606 2.0
## last     0.44 0.58 0.14 0.35 0.22 0.721 0.279 3.1
## week     0.56 0.62 0.14 0.14 0.03 0.743 0.257 2.2
## young    0.91 0.12 0.15 0.06 0.05 0.878 0.122 1.1
## campaign 0.23 0.74 0.07 -0.01 0.25 0.672 0.328 1.5
## challeng 0.35 0.37 0.36 0.14 0.28 0.488 0.512 4.2
## http     0.06 -0.01 -0.09 0.79 -0.06 0.634 0.366 1.0
## news     0.30 0.88 0.03 0.12 0.05 0.877 0.123 1.3
## take     0.84 0.40 0.15 0.15 0.17 0.942 0.058 1.7
## live     0.34 0.83 0.20 0.06 0.28 0.933 0.067 1.7
## elect    -0.02 0.91 0.32 0.05 0.07 0.933 0.067 1.3
## trump    0.18 0.31 0.10 -0.10 0.60 0.506 0.494 1.9
## high     0.65 0.25 0.03 0.44 0.17 0.700 0.300 2.3
## power    0.71 0.44 0.11 0.04 0.14 0.730 0.270 1.8
## support  0.48 0.67 0.36 0.11 -0.02 0.828 0.172 2.5
## see      0.41 0.76 0.17 0.11 0.27 0.861 0.139 2.0
## move     0.37 0.63 0.14 0.36 0.08 0.691 0.309 2.4
## veri     0.31 0.53 0.37 0.11 0.44 0.714 0.286 3.6
## suggest  0.15 0.64 -0.02 0.05 0.29 0.521 0.479 1.5
## impact   0.73 0.15 0.10 0.14 0.12 0.606 0.394 1.3
## action   0.93 0.10 0.09 0.05 0.03 0.888 0.112 1.1
## stop     0.47 0.59 0.23 0.10 0.37 0.777 0.223 3.1
## accord   0.60 0.20 0.04 0.11 0.17 0.438 0.562 1.5
## hold     0.63 0.52 0.34 0.15 0.07 0.806 0.194 2.7
## water    0.65 0.05 0.15 0.31 0.05 0.539 0.461 1.6
## new      0.72 0.37 0.36 0.25 0.11 0.863 0.137 2.4
## york     0.91 0.20 0.08 -0.02 0.04 0.870 0.130 1.1
## time     0.05 0.74 0.50 0.08 0.33 0.906 0.094 2.2
## far      0.68 0.37 0.17 0.12 0.16 0.674 0.326 1.9
## issu     0.60 0.40 0.35 0.03 0.31 0.742 0.258 3.0

```

|                |      |       |       |       |       |       |       |     |
|----------------|------|-------|-------|-------|-------|-------|-------|-----|
| ## good        | 0.44 | 0.54  | 0.18  | 0.38  | 0.34  | 0.780 | 0.220 | 3.8 |
| ## first       | 0.56 | 0.46  | 0.49  | 0.26  | 0.09  | 0.852 | 0.148 | 3.5 |
| ## cut         | 0.14 | 0.25  | 0.37  | 0.69  | 0.05  | 0.703 | 0.297 | 2.0 |
| ## without     | 0.40 | 0.61  | 0.25  | 0.20  | 0.00  | 0.638 | 0.362 | 2.4 |
| ## fact        | 0.38 | 0.31  | 0.15  | 0.11  | 0.23  | 0.332 | 0.668 | 3.3 |
| ## includ      | 0.78 | 0.39  | 0.23  | 0.13  | 0.17  | 0.854 | 0.146 | 1.9 |
| ## much        | 0.62 | 0.42  | 0.26  | 0.23  | 0.18  | 0.705 | 0.295 | 2.7 |
| ## also        | 0.68 | 0.38  | 0.40  | 0.34  | 0.12  | 0.907 | 0.093 | 2.9 |
| ## activ       | 0.86 | 0.04  | 0.12  | 0.12  | 0.01  | 0.769 | 0.231 | 1.1 |
| ## financi     | 0.10 | 0.01  | 0.13  | 0.18  | 0.03  | 0.062 | 0.938 | 2.5 |
| ## busi        | 0.33 | 0.24  | 0.22  | 0.60  | 0.15  | 0.598 | 0.402 | 2.4 |
| ## larg        | 0.57 | 0.34  | 0.09  | 0.10  | 0.15  | 0.478 | 0.522 | 2.0 |
| ## coal        | 0.52 | 0.01  | -0.01 | 0.01  | 0.00  | 0.269 | 0.731 | 1.0 |
| ## plant       | 0.34 | -0.03 | 0.08  | 0.06  | -0.01 | 0.125 | 0.875 | 1.2 |
| ## countri     | 0.65 | 0.40  | 0.36  | 0.16  | 0.21  | 0.785 | 0.215 | 2.7 |
| ## relat       | 0.55 | 0.38  | 0.26  | 0.07  | 0.46  | 0.729 | 0.271 | 3.3 |
| ## attack      | 0.20 | 0.54  | 0.18  | 0.18  | 0.20  | 0.439 | 0.561 | 2.1 |
| ## direct      | 0.50 | 0.41  | 0.07  | 0.19  | 0.14  | 0.475 | 0.525 | 2.5 |
| ## https       | 0.84 | 0.40  | 0.14  | 0.10  | 0.20  | 0.945 | 0.055 | 1.7 |
| ## recent      | 0.58 | 0.36  | 0.08  | 0.32  | 0.01  | 0.575 | 0.425 | 2.3 |
| ## year        | 0.70 | 0.29  | 0.30  | 0.39  | 0.06  | 0.818 | 0.182 | 2.4 |
| ## intern      | 0.33 | 0.27  | 0.24  | 0.09  | 0.11  | 0.257 | 0.743 | 3.2 |
| ## just        | 0.60 | 0.50  | 0.32  | 0.34  | 0.18  | 0.858 | 0.142 | 3.4 |
| ## least       | 0.52 | 0.43  | 0.17  | 0.33  | 0.13  | 0.603 | 0.397 | 3.1 |
| ## two         | 0.45 | 0.71  | 0.22  | 0.11  | 0.05  | 0.767 | 0.233 | 2.0 |
| ## oil         | 0.44 | 0.00  | 0.00  | 0.16  | -0.01 | 0.216 | 0.784 | 1.3 |
| ## part        | 0.83 | 0.31  | 0.24  | 0.07  | 0.09  | 0.856 | 0.144 | 1.5 |
| ## effort      | 0.72 | 0.07  | 0.50  | 0.11  | 0.01  | 0.786 | 0.214 | 1.9 |
| ## state       | 0.63 | 0.41  | 0.14  | -0.02 | 0.32  | 0.687 | 0.313 | 2.4 |
| ## lead        | 0.63 | 0.42  | 0.28  | 0.04  | 0.07  | 0.656 | 0.344 | 2.2 |
| ## climat      | 0.98 | 0.06  | 0.03  | 0.00  | 0.03  | 0.959 | 0.041 | 1.0 |
| ## scientist   | 0.38 | -0.01 | -0.04 | 0.00  | -0.03 | 0.150 | 0.850 | 1.0 |
| ## keep        | 0.49 | 0.25  | 0.55  | 0.23  | 0.25  | 0.714 | 0.286 | 3.2 |
| ## major       | 0.64 | 0.48  | 0.16  | 0.11  | 0.29  | 0.761 | 0.239 | 2.6 |
| ## carbon      | 0.59 | 0.01  | 0.01  | 0.06  | -0.04 | 0.359 | 0.641 | 1.0 |
| ## will        | 0.37 | 0.62  | 0.41  | 0.41  | 0.18  | 0.892 | 0.108 | 3.6 |
| ## level       | 0.60 | 0.12  | 0.01  | 0.11  | 0.02  | 0.387 | 0.613 | 1.2 |
| ## warm        | 0.31 | -0.01 | -0.07 | 0.05  | -0.01 | 0.105 | 0.895 | 1.2 |
| ## found       | 0.14 | 0.47  | 0.04  | 0.10  | 0.11  | 0.267 | 0.733 | 1.4 |
| ## record      | 0.13 | 0.15  | 0.03  | 0.31  | 0.13  | 0.158 | 0.842 | 2.3 |
| ## review      | 0.05 | 0.26  | 0.14  | 0.16  | 0.14  | 0.132 | 0.868 | 2.9 |
| ## david       | 0.01 | 0.31  | -0.01 | 0.55  | 0.34  | 0.513 | 0.487 | 2.3 |
| ## month       | 0.61 | 0.27  | 0.17  | 0.42  | 0.14  | 0.669 | 0.331 | 2.6 |
| ## trade       | 0.19 | 0.48  | 0.25  | 0.17  | 0.32  | 0.458 | 0.542 | 3.0 |
| ## fund        | 0.23 | 0.18  | 0.16  | 0.39  | 0.01  | 0.268 | 0.732 | 2.5 |
| ## make        | 0.65 | 0.51  | 0.34  | 0.16  | 0.30  | 0.906 | 0.094 | 3.1 |
| ## environment | 0.78 | 0.05  | 0.09  | 0.04  | 0.01  | 0.628 | 0.372 | 1.0 |
| ## seem        | 0.22 | 0.55  | 0.29  | 0.19  | 0.19  | 0.513 | 0.487 | 2.5 |
| ## mani        | 0.83 | 0.32  | 0.29  | 0.11  | 0.08  | 0.901 | 0.099 | 1.6 |
| ## warn        | 0.02 | 0.37  | -0.02 | 0.43  | 0.21  | 0.358 | 0.642 | 2.4 |
| ## say         | 0.11 | 0.84  | 0.06  | 0.15  | 0.37  | 0.875 | 0.125 | 1.5 |
| ## gas         | 0.65 | -0.01 | 0.00  | 0.13  | -0.02 | 0.444 | 0.556 | 1.1 |
| ## current     | 0.34 | 0.52  | 0.11  | 0.11  | 0.01  | 0.414 | 0.586 | 2.0 |
| ## view        | 0.26 | 0.75  | 0.23  | 0.14  | 0.02  | 0.705 | 0.295 | 1.5 |

|               |       |       |       |       |       |       |       |     |
|---------------|-------|-------|-------|-------|-------|-------|-------|-----|
| ## made       | 0.50  | 0.52  | 0.26  | 0.15  | 0.39  | 0.765 | 0.235 | 3.6 |
| ## environ    | 0.85  | 0.08  | 0.07  | 0.07  | 0.02  | 0.745 | 0.255 | 1.0 |
| ## sep        | 0.61  | 0.67  | 0.03  | -0.06 | -0.19 | 0.856 | 0.144 | 2.2 |
| ## world      | 0.83  | 0.12  | 0.21  | 0.00  | 0.06  | 0.743 | 0.257 | 1.2 |
| ## import     | 0.63  | 0.34  | 0.40  | 0.08  | 0.21  | 0.730 | 0.270 | 2.6 |
| ## polici     | 0.22  | 0.70  | 0.11  | 0.08  | 0.02  | 0.553 | 0.447 | 1.3 |
| ## whi        | 0.65  | 0.53  | 0.24  | 0.07  | 0.19  | 0.804 | 0.196 | 2.5 |
| ## sector     | 0.18  | 0.34  | 0.13  | 0.12  | -0.15 | 0.200 | 0.800 | 2.7 |
| ## give       | 0.25  | 0.76  | 0.24  | 0.19  | 0.40  | 0.892 | 0.108 | 2.1 |
| ## chang      | 0.88  | 0.19  | 0.08  | 0.11  | 0.14  | 0.852 | 0.148 | 1.2 |
| ## still      | 0.67  | 0.42  | 0.17  | 0.29  | 0.22  | 0.778 | 0.222 | 2.5 |
| ## day        | 0.75  | 0.45  | 0.26  | 0.24  | 0.09  | 0.911 | 0.089 | 2.2 |
| ## temperatur | 0.33  | -0.03 | -0.04 | 0.02  | 0.03  | 0.115 | 0.885 | 1.1 |
| ## sinc       | 0.45  | 0.30  | 0.30  | 0.46  | 0.18  | 0.625 | 0.375 | 3.8 |
| ## need       | 0.79  | 0.37  | 0.29  | 0.20  | 0.08  | 0.894 | 0.106 | 1.9 |
| ## know       | 0.40  | 0.73  | 0.22  | 0.04  | 0.08  | 0.747 | 0.253 | 1.8 |
| ## befor      | 0.40  | 0.65  | 0.23  | 0.16  | 0.33  | 0.768 | 0.232 | 2.7 |
| ## long       | 0.40  | 0.35  | 0.28  | 0.38  | 0.43  | 0.683 | 0.317 | 4.7 |
| ## old        | 0.92  | 0.11  | 0.13  | 0.02  | 0.02  | 0.879 | 0.121 | 1.1 |
| ## activist   | 0.93  | 0.12  | 0.04  | -0.02 | 0.03  | 0.892 | 0.108 | 1.0 |
| ## respons    | 0.27  | 0.23  | 0.35  | 0.50  | 0.27  | 0.577 | 0.423 | 3.6 |
| ## claim      | 0.06  | 0.56  | 0.02  | 0.23  | 0.46  | 0.589 | 0.411 | 2.3 |
| ## peopl      | 0.78  | 0.45  | 0.28  | 0.10  | 0.11  | 0.911 | 0.089 | 2.0 |
| ## research   | 0.15  | 0.00  | 0.06  | 0.03  | -0.01 | 0.028 | 0.972 | 1.5 |
| ## told       | 0.36  | 0.72  | 0.15  | 0.03  | 0.34  | 0.784 | 0.216 | 2.1 |
| ## now        | 0.59  | 0.66  | 0.20  | 0.16  | 0.20  | 0.895 | 0.105 | 2.5 |
| ## movement   | 0.68  | 0.21  | 0.13  | -0.06 | 0.08  | 0.529 | 0.471 | 1.3 |
| ## done       | 0.65  | 0.33  | 0.29  | 0.14  | 0.28  | 0.713 | 0.287 | 2.5 |
| ## futur      | 0.92  | 0.19  | 0.15  | 0.07  | 0.05  | 0.917 | 0.083 | 1.2 |
| ## half       | 0.34  | 0.35  | 0.11  | 0.28  | 0.07  | 0.335 | 0.665 | 3.2 |
| ## thought    | 0.35  | 0.49  | 0.12  | 0.18  | 0.25  | 0.463 | 0.537 | 2.9 |
| ## tackl      | 0.57  | 0.18  | 0.17  | 0.27  | 0.07  | 0.460 | 0.540 | 1.9 |
| ## go         | 0.54  | 0.68  | 0.27  | 0.10  | 0.14  | 0.857 | 0.143 | 2.4 |
| ## point      | 0.41  | 0.60  | 0.20  | 0.16  | 0.32  | 0.696 | 0.304 | 2.8 |
| ## becaus     | 0.67  | 0.50  | 0.19  | 0.12  | 0.19  | 0.781 | 0.219 | 2.3 |
| ## deal       | -0.02 | 0.59  | 0.05  | 0.15  | 0.62  | 0.752 | 0.248 | 2.1 |
| ## problem    | 0.61  | 0.28  | 0.14  | 0.07  | 0.51  | 0.739 | 0.261 | 2.5 |
| ## happen     | 0.54  | 0.62  | 0.10  | 0.11  | 0.17  | 0.722 | 0.278 | 2.3 |
| ## next       | 0.50  | 0.55  | 0.26  | 0.41  | 0.25  | 0.851 | 0.149 | 3.8 |
| ## planet     | 0.91  | 0.06  | 0.05  | 0.00  | 0.01  | 0.827 | 0.173 | 1.0 |
| ## human      | 0.40  | 0.17  | 0.04  | -0.03 | 0.04  | 0.197 | 0.803 | 1.4 |
| ## we'r       | 0.78  | 0.28  | 0.20  | 0.05  | 0.02  | 0.739 | 0.261 | 1.4 |
| ## ask        | 0.55  | 0.57  | 0.13  | 0.11  | 0.32  | 0.754 | 0.246 | 2.8 |
| ## question   | 0.37  | 0.69  | 0.08  | 0.23  | 0.40  | 0.829 | 0.171 | 2.5 |
| ## offic      | 0.46  | 0.55  | 0.29  | 0.24  | 0.07  | 0.658 | 0.342 | 3.0 |
| ## continu    | 0.33  | 0.28  | 0.67  | 0.36  | 0.18  | 0.801 | 0.199 | 2.7 |
| ## real       | 0.49  | 0.26  | 0.26  | 0.08  | 0.13  | 0.399 | 0.601 | 2.4 |
| ## stand      | 0.42  | 0.45  | 0.10  | 0.05  | 0.68  | 0.845 | 0.155 | 2.5 |
| ## way        | 0.69  | 0.39  | 0.40  | 0.06  | 0.11  | 0.801 | 0.199 | 2.4 |
| ## let        | 0.40  | 0.71  | 0.16  | 0.05  | 0.14  | 0.722 | 0.278 | 1.8 |
| ## free       | 0.04  | 0.76  | 0.14  | 0.30  | -0.06 | 0.693 | 0.307 | 1.4 |
| ## word       | 0.26  | 0.49  | 0.06  | 0.47  | 0.06  | 0.540 | 0.460 | 2.6 |
| ## anoth      | 0.55  | 0.63  | 0.16  | 0.19  | 0.18  | 0.783 | 0.217 | 2.5 |
| ## presid     | 0.34  | 0.24  | 0.24  | -0.05 | 0.43  | 0.419 | 0.581 | 3.2 |

|             |       |       |       |       |       |       |       |     |
|-------------|-------|-------|-------|-------|-------|-------|-------|-----|
| ## come     | 0.66  | 0.46  | 0.33  | 0.25  | 0.23  | 0.877 | 0.123 | 3.0 |
| ## back     | 0.12  | 0.91  | 0.19  | 0.14  | 0.19  | 0.928 | 0.072 | 1.3 |
| ## put      | 0.37  | 0.72  | 0.14  | 0.31  | 0.17  | 0.804 | 0.196 | 2.1 |
| ## prepar   | 0.41  | 0.39  | 0.13  | 0.30  | 0.39  | 0.577 | 0.423 | 4.1 |
| ## ocean    | 0.08  | -0.04 | 0.09  | 0.02  | -0.02 | 0.016 | 0.984 | 2.6 |
| ## rise     | 0.71  | 0.09  | -0.01 | 0.23  | 0.07  | 0.576 | 0.424 | 1.3 |
| ## mean     | 0.07  | 0.61  | 0.32  | 0.36  | 0.18  | 0.639 | 0.361 | 2.5 |
| ## govern   | 0.23  | 0.52  | 0.59  | 0.26  | 0.22  | 0.784 | 0.216 | 3.1 |
| ## must     | 0.17  | 0.68  | 0.18  | 0.23  | 0.25  | 0.641 | 0.359 | 1.8 |
| ## latest   | 0.28  | 0.90  | -0.04 | 0.10  | -0.03 | 0.892 | 0.108 | 1.2 |
| ## scienc   | 0.42  | 0.00  | -0.01 | -0.01 | 0.00  | 0.174 | 0.826 | 1.0 |
| ## tell     | 0.41  | 0.60  | 0.02  | 0.22  | 0.33  | 0.682 | 0.318 | 2.8 |
| ## want     | 0.57  | 0.71  | 0.26  | 0.07  | 0.11  | 0.916 | 0.084 | 2.3 |
| ## protect  | 0.52  | 0.28  | 0.43  | 0.06  | 0.26  | 0.610 | 0.390 | 3.1 |
| ## citi     | 0.95  | 0.07  | 0.09  | 0.05  | 0.01  | 0.913 | 0.087 | 1.0 |
| ## place    | 0.57  | 0.36  | 0.49  | 0.14  | 0.22  | 0.768 | 0.232 | 3.2 |
| ## univers  | 0.49  | 0.26  | 0.14  | 0.03  | -0.03 | 0.330 | 0.670 | 1.7 |
| ## articl   | 0.21  | 0.56  | -0.01 | 0.11  | 0.19  | 0.409 | 0.591 | 1.6 |
| ## publish  | -0.03 | 0.73  | 0.43  | 0.05  | 0.39  | 0.867 | 0.133 | 2.2 |
| ## energi   | 0.66  | 0.07  | 0.12  | 0.11  | 0.01  | 0.467 | 0.533 | 1.2 |
| ## meet     | 0.44  | 0.63  | 0.38  | 0.06  | 0.29  | 0.822 | 0.178 | 3.1 |
| ## target   | 0.29  | 0.14  | 0.08  | 0.26  | 0.08  | 0.180 | 0.820 | 2.8 |
| ## set      | 0.32  | 0.33  | 0.15  | 0.31  | 0.24  | 0.390 | 0.610 | 4.2 |
| ## pari     | 0.56  | 0.00  | -0.04 | 0.03  | 0.01  | 0.318 | 0.682 | 1.0 |
| ## comment  | 0.15  | 0.71  | 0.04  | 0.19  | 0.32  | 0.671 | 0.329 | 1.7 |
| ## everi    | 0.48  | 0.42  | 0.36  | 0.45  | 0.02  | 0.741 | 0.259 | 3.8 |
| ## zero     | 0.39  | 0.26  | -0.03 | 0.04  | 0.09  | 0.231 | 0.769 | 1.9 |
| ## start    | 0.81  | 0.31  | 0.21  | 0.19  | 0.27  | 0.914 | 0.086 | 1.8 |
| ## hard     | 0.17  | 0.50  | 0.42  | 0.34  | 0.08  | 0.579 | 0.421 | 3.1 |
| ## requir   | 0.27  | 0.36  | 0.18  | 0.18  | 0.39  | 0.423 | 0.577 | 3.7 |
| ## head     | 0.50  | 0.34  | 0.17  | 0.37  | 0.36  | 0.664 | 0.336 | 3.9 |
| ## industri | 0.46  | 0.21  | 0.14  | 0.28  | 0.07  | 0.359 | 0.641 | 2.4 |
| ## bank     | 0.04  | 0.19  | 0.21  | 0.22  | -0.04 | 0.133 | 0.867 | 3.1 |
| ## financ   | 0.02  | 0.00  | 0.08  | 0.29  | -0.01 | 0.093 | 0.907 | 1.1 |
| ## great    | 0.38  | 0.31  | 0.66  | 0.12  | 0.20  | 0.731 | 0.269 | 2.4 |
| ## speech   | 0.14  | 0.61  | 0.17  | 0.32  | 0.05  | 0.523 | 0.477 | 1.8 |
| ## natur    | 0.52  | 0.02  | 0.19  | 0.02  | 0.03  | 0.304 | 0.696 | 1.3 |
| ## open     | 0.10  | 0.36  | 0.75  | 0.12  | 0.14  | 0.735 | 0.265 | 1.6 |
| ## ani      | 0.43  | 0.66  | 0.15  | 0.12  | 0.44  | 0.849 | 0.151 | 2.8 |
| ## look     | 0.38  | 0.57  | 0.30  | 0.37  | 0.07  | 0.700 | 0.300 | 3.2 |
| ## work     | 0.24  | 0.59  | 0.53  | 0.18  | -0.11 | 0.736 | 0.264 | 2.6 |
| ## famili   | 0.27  | 0.27  | 0.76  | 0.19  | -0.03 | 0.759 | 0.241 | 1.7 |
| ## follow   | 0.50  | 0.39  | 0.25  | 0.23  | 0.13  | 0.541 | 0.459 | 3.1 |
| ## privat   | 0.15  | 0.55  | -0.03 | -0.03 | -0.13 | 0.343 | 0.657 | 1.3 |
| ## around   | 0.81  | 0.27  | 0.20  | 0.16  | 0.04  | 0.791 | 0.209 | 1.4 |
| ## earth    | 0.79  | 0.02  | 0.08  | 0.01  | -0.02 | 0.631 | 0.369 | 1.0 |
| ## help     | 0.67  | 0.18  | 0.26  | 0.34  | 0.00  | 0.673 | 0.327 | 2.0 |
| ## status   | 0.77  | 0.52  | 0.14  | 0.14  | 0.22  | 0.946 | 0.054 | 2.1 |
| ## media    | 0.38  | 0.43  | 0.20  | 0.02  | 0.26  | 0.443 | 0.557 | 3.1 |
| ## propos   | 0.16  | 0.74  | 0.16  | 0.04  | -0.04 | 0.602 | 0.398 | 1.2 |
| ## price    | 0.08  | 0.09  | 0.04  | 0.32  | 0.04  | 0.116 | 0.884 | 1.3 |
| ## system   | 0.30  | 0.35  | 0.29  | 0.20  | -0.06 | 0.344 | 0.656 | 3.6 |
| ## allow    | 0.40  | 0.55  | 0.24  | 0.30  | 0.37  | 0.747 | 0.253 | 3.8 |
| ## project  | 0.20  | 0.01  | 0.19  | 0.29  | -0.01 | 0.161 | 0.839 | 2.6 |

|              |       |      |       |       |       |       |       |     |
|--------------|-------|------|-------|-------|-------|-------|-------|-----|
| ## health    | 0.11  | 0.28 | 0.28  | 0.12  | 0.09  | 0.190 | 0.810 | 3.0 |
| ## global    | 0.85  | 0.02 | 0.10  | 0.04  | -0.01 | 0.739 | 0.261 | 1.0 |
| ## spend     | 0.04  | 0.35 | 0.16  | 0.37  | -0.06 | 0.293 | 0.707 | 2.4 |
| ## fail      | 0.23  | 0.34 | -0.06 | 0.69  | 0.22  | 0.696 | 0.304 | 2.0 |
| ## almost    | 0.47  | 0.45 | 0.26  | 0.14  | 0.01  | 0.507 | 0.493 | 2.7 |
| ## decad     | 0.51  | 0.31 | 0.36  | 0.06  | -0.07 | 0.502 | 0.498 | 2.6 |
| ## effect    | 0.51  | 0.54 | 0.01  | 0.07  | 0.15  | 0.587 | 0.413 | 2.2 |
| ## serious   | 0.54  | 0.45 | 0.14  | 0.12  | 0.27  | 0.599 | 0.401 | 2.7 |
| ## grow      | 0.30  | 0.05 | 0.22  | 0.24  | 0.06  | 0.196 | 0.804 | 3.0 |
| ## ever      | 0.54  | 0.38 | 0.35  | 0.26  | 0.08  | 0.624 | 0.376 | 3.2 |
| ## may       | 0.03  | 0.37 | 0.04  | 0.20  | 0.56  | 0.493 | 0.507 | 2.0 |
| ## within    | 0.23  | 0.77 | 0.08  | 0.09  | 0.00  | 0.660 | 0.340 | 1.2 |
| ## term      | 0.12  | 0.41 | 0.41  | 0.43  | 0.18  | 0.573 | 0.427 | 3.5 |
| ## land      | 0.42  | 0.14 | 0.26  | 0.01  | -0.01 | 0.263 | 0.737 | 2.0 |
| ## thousand  | 0.89  | 0.19 | -0.01 | 0.19  | 0.03  | 0.870 | 0.130 | 1.2 |
| ## interest  | 0.06  | 0.48 | 0.48  | 0.38  | 0.09  | 0.615 | 0.385 | 3.0 |
| ## never     | 0.21  | 0.63 | 0.19  | 0.07  | 0.26  | 0.555 | 0.445 | 1.8 |
| ## end       | 0.21  | 0.69 | 0.22  | 0.27  | 0.27  | 0.713 | 0.287 | 2.1 |
| ## polit     | 0.01  | 0.81 | 0.04  | 0.13  | 0.49  | 0.919 | 0.081 | 1.7 |
| ## book      | 0.16  | 0.15 | 0.06  | 0.17  | -0.02 | 0.081 | 0.919 | 3.3 |
| ## market    | 0.00  | 0.09 | 0.31  | 0.34  | 0.07  | 0.221 | 0.779 | 2.2 |
| ## pollut    | 0.67  | 0.03 | 0.00  | 0.04  | 0.04  | 0.457 | 0.543 | 1.0 |
| ## emiss     | 0.73  | 0.07 | 0.01  | 0.03  | 0.02  | 0.544 | 0.456 | 1.0 |
| ## friend    | 0.86  | 0.27 | 0.21  | 0.06  | -0.02 | 0.853 | 0.147 | 1.3 |
| ## run       | 0.48  | 0.49 | 0.18  | 0.21  | 0.27  | 0.625 | 0.375 | 3.3 |
| ## hope      | 0.46  | 0.41 | 0.32  | 0.07  | 0.38  | 0.622 | 0.378 | 3.8 |
| ## economi   | 0.14  | 0.20 | 0.46  | 0.52  | 0.24  | 0.599 | 0.401 | 2.9 |
| ## deliv     | 0.03  | 0.48 | 0.25  | 0.62  | 0.32  | 0.777 | 0.223 | 2.8 |
| ## huge      | 0.80  | 0.38 | 0.03  | 0.02  | 0.20  | 0.830 | 0.170 | 1.6 |
| ## number    | 0.59  | 0.49 | 0.12  | 0.27  | 0.18  | 0.712 | 0.288 | 2.7 |
| ## well      | 0.30  | 0.45 | 0.48  | 0.48  | 0.10  | 0.758 | 0.242 | 3.8 |
| ## pay       | 0.00  | 0.53 | 0.04  | 0.71  | 0.04  | 0.788 | 0.212 | 1.9 |
| ## job       | 0.35  | 0.45 | 0.27  | 0.53  | 0.30  | 0.762 | 0.238 | 4.0 |
| ## public    | 0.25  | 0.75 | 0.10  | 0.25  | 0.21  | 0.741 | 0.259 | 1.7 |
| ## communiti | 0.40  | 0.28 | 0.54  | 0.00  | 0.00  | 0.528 | 0.472 | 2.4 |
| ## littl     | 0.27  | 0.18 | 0.18  | 0.27  | 0.13  | 0.229 | 0.771 | 4.0 |
| ## togeth    | 0.45  | 0.39 | 0.63  | 0.11  | 0.07  | 0.763 | 0.237 | 2.6 |
| ## creat     | 0.35  | 0.46 | 0.39  | 0.20  | -0.08 | 0.532 | 0.468 | 3.4 |
| ## result    | 0.16  | 0.68 | 0.07  | 0.22  | -0.05 | 0.546 | 0.454 | 1.4 |
| ## someth    | 0.49  | 0.30 | 0.35  | 0.23  | 0.02  | 0.509 | 0.491 | 3.1 |
| ## critic    | 0.02  | 0.32 | 0.07  | -0.09 | 0.76  | 0.689 | 0.311 | 1.4 |
| ## tax       | -0.05 | 0.19 | 0.18  | 0.78  | 0.14  | 0.708 | 0.292 | 1.3 |
| ## build     | 0.70  | 0.21 | 0.46  | 0.18  | -0.01 | 0.778 | 0.222 | 2.1 |
| ## leav      | 0.19  | 0.81 | 0.09  | 0.29  | 0.18  | 0.821 | 0.179 | 1.5 |
| ## big       | 0.69  | 0.28 | 0.18  | 0.41  | 0.08  | 0.759 | 0.241 | 2.2 |
| ## signific  | 0.26  | 0.44 | 0.31  | 0.18  | 0.30  | 0.480 | 0.520 | 3.8 |
| ## former    | 0.14  | 0.44 | 0.11  | 0.02  | 0.68  | 0.680 | 0.320 | 1.9 |
| ## generat   | 0.82  | 0.19 | 0.04  | 0.33  | -0.04 | 0.817 | 0.183 | 1.4 |
| ## fight     | 0.85  | 0.24 | 0.19  | -0.04 | 0.06  | 0.822 | 0.178 | 1.3 |
| ## clear     | 0.21  | 0.75 | 0.10  | 0.17  | 0.29  | 0.724 | 0.276 | 1.6 |
| ## best      | 0.34  | 0.46 | 0.32  | 0.20  | 0.17  | 0.490 | 0.510 | 3.5 |
| ## nation    | 0.43  | 0.48 | 0.58  | 0.15  | -0.05 | 0.772 | 0.228 | 3.0 |
| ## guardian  | 0.85  | 0.27 | 0.08  | 0.04  | 0.10  | 0.818 | 0.182 | 1.3 |
| ## newspap   | 0.11  | 0.36 | 0.07  | 0.11  | 0.26  | 0.229 | 0.771 | 2.3 |

|              |       |       |       |       |       |       |       |     |
|--------------|-------|-------|-------|-------|-------|-------|-------|-----|
| ## limit     | 0.08  | 0.31  | 0.06  | 0.01  | -0.03 | 0.107 | 0.893 | 1.2 |
| ## document  | 0.09  | 0.37  | -0.04 | 0.21  | -0.14 | 0.206 | 0.794 | 2.1 |
| ## grdn      | 0.09  | 0.13  | 0.09  | 0.00  | 0.04  | 0.035 | 0.965 | 2.9 |
| ## biggest   | 0.84  | 0.22  | 0.04  | 0.18  | -0.01 | 0.790 | 0.210 | 1.2 |
| ## provid    | 0.16  | 0.29  | 0.70  | 0.29  | 0.03  | 0.686 | 0.314 | 1.8 |
| ## develop   | 0.07  | 0.06  | 0.20  | 0.05  | -0.07 | 0.057 | 0.943 | 1.8 |
| ## group     | 0.55  | 0.19  | 0.11  | 0.03  | 0.17  | 0.382 | 0.618 | 1.5 |
| ## said      | 0.66  | 0.58  | 0.05  | 0.13  | 0.25  | 0.856 | 0.144 | 2.4 |
| ## invest    | 0.14  | 0.23  | 0.47  | 0.23  | -0.02 | 0.340 | 0.660 | 2.2 |
| ## confer    | -0.02 | 0.93  | -0.04 | -0.04 | -0.30 | 0.949 | 0.051 | 1.2 |
| ## greenhous | 0.60  | -0.02 | 0.00  | 0.01  | -0.01 | 0.364 | 0.636 | 1.0 |
| ## agreement | 0.37  | 0.43  | 0.07  | 0.10  | 0.22  | 0.386 | 0.614 | 2.7 |
| ## unit      | 0.36  | 0.63  | 0.17  | -0.08 | 0.04  | 0.560 | 0.440 | 1.8 |
| ## increas   | 0.46  | 0.31  | 0.14  | 0.47  | 0.03  | 0.552 | 0.448 | 2.9 |
| ## renew     | 0.78  | 0.16  | 0.07  | 0.10  | 0.04  | 0.647 | 0.353 | 1.1 |
| ## green     | 0.25  | 0.24  | 0.02  | 0.10  | -0.12 | 0.142 | 0.858 | 2.8 |
| ## sustain   | 0.21  | 0.01  | 0.14  | 0.09  | -0.04 | 0.073 | 0.927 | 2.2 |
| ## plan      | 0.53  | 0.64  | 0.21  | 0.11  | 0.13  | 0.764 | 0.236 | 2.3 |
| ## john      | 0.00  | 0.69  | 0.23  | 0.24  | 0.14  | 0.610 | 0.390 | 1.6 |
| ## director  | 0.06  | 0.03  | 0.10  | 0.13  | -0.02 | 0.032 | 0.968 | 2.6 |
| ## million   | 0.70  | 0.23  | 0.29  | 0.24  | 0.00  | 0.674 | 0.326 | 1.8 |
| ## taken     | 0.69  | 0.43  | 0.04  | 0.20  | 0.25  | 0.765 | 0.235 | 2.2 |
| ## bn        | 0.15  | 0.24  | 0.12  | 0.20  | 0.03  | 0.137 | 0.863 | 3.3 |
| ## across    | 0.91  | 0.18  | 0.21  | 0.09  | 0.07  | 0.922 | 0.078 | 1.2 |
| ## institut  | -0.01 | 0.19  | 0.35  | 0.11  | 0.10  | 0.178 | 0.822 | 2.0 |
| ## near      | 0.77  | 0.11  | 0.12  | 0.24  | 0.01  | 0.683 | 0.317 | 1.3 |
| ## enough    | 0.43  | 0.24  | 0.10  | 0.12  | 0.13  | 0.284 | 0.716 | 2.1 |
| ## home      | 0.41  | 0.30  | 0.47  | 0.43  | -0.02 | 0.665 | 0.335 | 3.7 |
| ## flood     | 0.19  | -0.03 | 0.04  | 0.09  | 0.00  | 0.047 | 0.953 | 1.5 |
| ## use       | 0.43  | 0.59  | 0.16  | 0.27  | 0.14  | 0.649 | 0.351 | 2.6 |
| ## less      | 0.25  | 0.34  | 0.06  | 0.42  | -0.01 | 0.357 | 0.643 | 2.7 |
| ## produc    | 0.36  | 0.04  | 0.24  | 0.12  | -0.01 | 0.202 | 0.798 | 2.1 |
| ## educ      | 0.30  | 0.51  | 0.10  | 0.26  | -0.15 | 0.453 | 0.547 | 2.5 |
| ## strong    | 0.29  | 0.41  | 0.54  | 0.27  | 0.17  | 0.642 | 0.358 | 3.3 |
| ## call      | 0.59  | 0.66  | 0.04  | 0.06  | 0.16  | 0.820 | 0.180 | 2.1 |
| ## past      | 0.67  | 0.31  | 0.28  | 0.06  | -0.10 | 0.637 | 0.363 | 1.9 |
| ## alreadi   | 0.81  | 0.23  | 0.22  | 0.12  | 0.10  | 0.779 | 0.221 | 1.4 |
| ## rule      | 0.03  | 0.66  | 0.08  | 0.05  | 0.17  | 0.475 | 0.525 | 1.2 |
| ## technolog | 0.41  | 0.14  | 0.06  | 0.12  | 0.00  | 0.203 | 0.797 | 1.5 |
| ## find      | 0.57  | 0.38  | 0.26  | 0.13  | 0.10  | 0.564 | 0.436 | 2.4 |
| ## believ    | 0.48  | 0.60  | 0.25  | 0.00  | 0.17  | 0.673 | 0.327 | 2.5 |
| ## play      | 0.26  | 0.27  | 0.12  | 0.17  | 0.14  | 0.204 | 0.796 | 3.6 |
| ## predict   | 0.22  | -0.01 | 0.01  | 0.28  | 0.05  | 0.125 | 0.875 | 2.0 |
| ## data      | 0.18  | -0.02 | 0.04  | 0.05  | 0.00  | 0.037 | 0.963 | 1.2 |
| ## led       | 0.49  | 0.44  | 0.12  | 0.02  | -0.05 | 0.445 | 0.555 | 2.1 |
| ## rather    | 0.32  | 0.44  | 0.23  | 0.31  | 0.04  | 0.445 | 0.555 | 3.3 |
| ## heat      | 0.66  | 0.00  | 0.05  | 0.02  | -0.01 | 0.433 | 0.567 | 1.0 |
| ## show      | 0.69  | 0.43  | 0.12  | 0.17  | 0.17  | 0.735 | 0.265 | 2.1 |
| ## co        | 0.51  | 0.07  | 0.05  | 0.01  | -0.02 | 0.267 | 0.733 | 1.1 |
| ## rais      | 0.25  | 0.37  | 0.09  | 0.58  | 0.29  | 0.635 | 0.365 | 2.8 |
| ## agre      | 0.35  | 0.69  | 0.02  | 0.03  | 0.30  | 0.689 | 0.311 | 1.9 |
| ## summit    | 0.65  | 0.07  | 0.01  | -0.03 | 0.08  | 0.433 | 0.567 | 1.1 |
| ## sign      | 0.92  | 0.16  | 0.08  | 0.08  | 0.06  | 0.883 | 0.117 | 1.1 |
| ## extrem    | 0.43  | 0.32  | 0.01  | 0.09  | 0.10  | 0.311 | 0.689 | 2.1 |

|               |       |       |       |       |       |       |       |     |
|---------------|-------|-------|-------|-------|-------|-------|-------|-----|
| ## weather    | 0.47  | -0.02 | 0.03  | 0.03  | 0.00  | 0.221 | 0.779 | 1.0 |
| ## food       | 0.15  | 0.04  | 0.13  | 0.17  | 0.01  | 0.069 | 0.931 | 3.0 |
| ## secur      | 0.07  | 0.44  | 0.65  | 0.04  | 0.10  | 0.635 | 0.365 | 1.9 |
| ## student    | 0.95  | 0.07  | 0.05  | -0.01 | 0.01  | 0.905 | 0.095 | 1.0 |
| ## even       | 0.66  | 0.40  | 0.21  | 0.24  | 0.20  | 0.731 | 0.269 | 2.4 |
| ## better     | 0.26  | 0.68  | 0.42  | 0.21  | 0.10  | 0.759 | 0.241 | 2.3 |
| ## tri        | 0.35  | 0.83  | 0.11  | 0.04  | 0.13  | 0.835 | 0.165 | 1.4 |
| ## per        | 0.23  | 0.01  | 0.07  | 0.31  | 0.03  | 0.153 | 0.847 | 2.0 |
| ## cent       | -0.03 | -0.03 | 0.07  | 0.24  | 0.01  | 0.066 | 0.934 | 1.2 |
| ## short      | 0.49  | 0.51  | 0.23  | 0.14  | 0.09  | 0.586 | 0.414 | 2.6 |
| ## net        | 0.18  | 0.22  | 0.04  | 0.07  | 0.08  | 0.098 | 0.902 | 2.6 |
| ## rate       | 0.13  | 0.09  | 0.41  | 0.73  | 0.02  | 0.731 | 0.269 | 1.7 |
| ## author     | 0.20  | 0.14  | -0.01 | 0.18  | -0.05 | 0.091 | 0.909 | 2.9 |
| ## whether    | 0.08  | 0.78  | 0.08  | 0.06  | 0.36  | 0.753 | 0.247 | 1.5 |
| ## think      | 0.25  | 0.62  | 0.29  | 0.13  | 0.24  | 0.603 | 0.397 | 2.3 |
| ## studi      | 0.26  | 0.08  | -0.03 | 0.13  | 0.02  | 0.092 | 0.908 | 1.8 |
| ## worker     | 0.86  | 0.33  | 0.19  | 0.09  | -0.06 | 0.892 | 0.108 | 1.4 |
| ## announc    | 0.41  | 0.65  | 0.02  | 0.48  | 0.11  | 0.831 | 0.169 | 2.7 |
| ## face       | 0.40  | 0.60  | 0.20  | 0.24  | 0.26  | 0.681 | 0.319 | 2.9 |
| ## uk         | 0.08  | 0.43  | 0.03  | 0.23  | 0.66  | 0.689 | 0.311 | 2.1 |
| ## crisi      | 0.92  | 0.09  | 0.06  | 0.03  | 0.03  | 0.863 | 0.137 | 1.0 |
| ## onli       | 0.40  | 0.77  | 0.17  | 0.12  | 0.05  | 0.794 | 0.206 | 1.7 |
| ## product    | 0.26  | 0.15  | 0.24  | 0.09  | -0.06 | 0.158 | 0.842 | 2.9 |
| ## cost       | 0.19  | 0.29  | 0.05  | 0.22  | 0.18  | 0.204 | 0.796 | 3.5 |
| ## abl        | 0.18  | 0.69  | 0.30  | 0.23  | 0.18  | 0.684 | 0.316 | 1.9 |
| ## politician | 0.77  | 0.26  | 0.01  | 0.06  | 0.04  | 0.672 | 0.328 | 1.2 |
| ## possibl    | 0.17  | 0.74  | 0.14  | 0.10  | 0.22  | 0.655 | 0.345 | 1.4 |
| ## electr     | 0.47  | 0.06  | 0.09  | 0.09  | -0.01 | 0.239 | 0.761 | 1.2 |
| ## focus      | 0.33  | 0.29  | 0.70  | 0.06  | 0.07  | 0.689 | 0.311 | 1.8 |
| ## econom     | -0.01 | 0.05  | 0.41  | 0.51  | 0.03  | 0.435 | 0.565 | 1.9 |
| ## debat      | -0.04 | 0.66  | 0.10  | -0.07 | 0.54  | 0.738 | 0.262 | 2.0 |
| ## benefit    | 0.05  | 0.24  | 0.26  | 0.46  | 0.05  | 0.347 | 0.653 | 2.2 |
| ## hous       | 0.12  | 0.42  | 0.57  | 0.33  | 0.27  | 0.690 | 0.310 | 3.2 |
| ## share      | 0.68  | 0.30  | 0.16  | 0.22  | 0.28  | 0.707 | 0.293 | 2.1 |
| ## organis    | 0.77  | 0.14  | 0.27  | 0.00  | 0.04  | 0.692 | 0.308 | 1.3 |
| ## low        | 0.24  | 0.04  | 0.25  | 0.46  | 0.05  | 0.333 | 0.667 | 2.2 |
| ## mark       | 0.60  | 0.34  | 0.27  | 0.24  | 0.00  | 0.604 | 0.396 | 2.4 |
| ## speak      | 0.46  | 0.72  | 0.16  | 0.05  | 0.03  | 0.753 | 0.247 | 1.8 |
| ## hit        | 0.16  | 0.15  | 0.14  | 0.59  | 0.17  | 0.450 | 0.550 | 1.6 |
| ## address    | 0.60  | 0.37  | 0.25  | 0.05  | 0.03  | 0.562 | 0.438 | 2.1 |
| ## case       | 0.09  | 0.58  | 0.21  | 0.08  | 0.18  | 0.433 | 0.567 | 1.6 |
| ## care       | 0.27  | 0.59  | 0.49  | 0.02  | -0.16 | 0.689 | 0.311 | 2.5 |
| ## today      | 0.83  | 0.35  | 0.19  | 0.26  | 0.13  | 0.927 | 0.073 | 1.8 |
| ## children   | 0.80  | 0.15  | 0.12  | 0.18  | 0.01  | 0.716 | 0.284 | 1.2 |
| ## five       | 0.34  | 0.46  | 0.46  | 0.29  | -0.02 | 0.627 | 0.373 | 3.5 |
| ## caus       | 0.61  | 0.15  | 0.02  | 0.11  | 0.07  | 0.416 | 0.584 | 1.2 |
| ## dure       | 0.56  | 0.33  | 0.24  | 0.33  | 0.12  | 0.601 | 0.399 | 2.9 |
| ## societi    | 0.13  | 0.48  | 0.14  | 0.16  | 0.31  | 0.390 | 0.610 | 2.3 |
| ## risk       | 0.13  | 0.09  | 0.03  | 0.17  | 0.26  | 0.121 | 0.879 | 2.7 |
| ## servic     | 0.01  | 0.47  | 0.75  | 0.17  | -0.04 | 0.814 | 0.186 | 1.8 |
| ## common     | 0.04  | 0.56  | 0.01  | 0.41  | 0.54  | 0.778 | 0.222 | 2.8 |
| ## howev      | 0.42  | 0.25  | 0.00  | 0.56  | 0.00  | 0.542 | 0.458 | 2.3 |
| ## strike     | 0.98  | 0.06  | 0.04  | 0.01  | 0.02  | 0.963 | 0.037 | 1.0 |
| ## threat     | 0.52  | 0.17  | 0.44  | 0.07  | 0.14  | 0.520 | 0.480 | 2.4 |

|               |       |       |       |       |       |       |       |     |
|---------------|-------|-------|-------|-------|-------|-------|-------|-----|
| ## emerg      | 0.67  | 0.25  | 0.10  | 0.03  | 0.01  | 0.523 | 0.477 | 1.3 |
| ## differ     | 0.37  | 0.58  | 0.29  | 0.05  | 0.20  | 0.605 | 0.395 | 2.6 |
| ## becom      | 0.34  | 0.29  | 0.10  | 0.32  | 0.29  | 0.388 | 0.612 | 4.1 |
| ## concern    | 0.31  | 0.29  | 0.07  | 0.17  | 0.35  | 0.337 | 0.663 | 3.6 |
| ## report     | 0.31  | 0.44  | 0.01  | 0.21  | 0.42  | 0.510 | 0.490 | 3.3 |
| ## region     | 0.50  | 0.07  | 0.67  | 0.05  | 0.04  | 0.708 | 0.292 | 1.9 |
| ## sever      | 0.59  | 0.13  | 0.01  | 0.11  | 0.10  | 0.394 | 0.606 | 1.2 |
| ## posit      | -0.02 | 0.86  | 0.16  | 0.09  | 0.16  | 0.798 | 0.202 | 1.2 |
| ## un         | 0.46  | 0.12  | 0.11  | -0.08 | 0.05  | 0.250 | 0.750 | 1.3 |
| ## yet        | 0.53  | 0.42  | 0.10  | 0.28  | 0.10  | 0.552 | 0.448 | 2.7 |
| ## manag      | 0.37  | 0.08  | 0.33  | 0.11  | 0.05  | 0.265 | 0.735 | 2.3 |
| ## air        | 0.56  | 0.04  | 0.05  | 0.13  | 0.09  | 0.348 | 0.652 | 1.2 |
| ## budget     | -0.02 | 0.02  | -0.06 | 0.93  | -0.02 | 0.867 | 0.133 | 1.0 |
| ## london     | 0.52  | 0.16  | 0.10  | 0.15  | 0.09  | 0.340 | 0.660 | 1.5 |
| ## reduc      | 0.64  | 0.16  | 0.20  | 0.22  | -0.06 | 0.527 | 0.473 | 1.6 |
| ## car        | 0.45  | 0.12  | 0.00  | 0.13  | -0.01 | 0.232 | 0.768 | 1.3 |
| ## might      | 0.26  | 0.61  | 0.07  | 0.31  | -0.04 | 0.538 | 0.462 | 1.9 |
| ## school     | 0.79  | 0.28  | 0.06  | 0.20  | -0.04 | 0.752 | 0.248 | 1.4 |
| ## australia  | 0.87  | 0.05  | 0.38  | 0.03  | 0.02  | 0.908 | 0.092 | 1.4 |
| ## social     | 0.36  | 0.53  | 0.20  | 0.00  | 0.05  | 0.454 | 0.546 | 2.1 |
| ## life       | 0.17  | 0.38  | 0.51  | 0.03  | 0.22  | 0.480 | 0.520 | 2.5 |
| ## expect     | 0.72  | 0.34  | 0.10  | 0.46  | 0.10  | 0.861 | 0.139 | 2.3 |
| ## measur     | 0.38  | 0.07  | 0.03  | 0.55  | 0.06  | 0.459 | 0.541 | 1.9 |
| ## australian | 0.07  | 0.01  | 0.92  | 0.07  | -0.03 | 0.855 | 0.145 | 1.0 |
| ## forc       | 0.24  | 0.58  | 0.24  | 0.34  | 0.29  | 0.650 | 0.350 | 3.0 |
| ## jul        | 0.05  | 0.32  | 0.04  | 0.04  | 0.87  | 0.864 | 0.136 | 1.3 |
| ## idea       | 0.13  | 0.44  | 0.17  | 0.03  | 0.05  | 0.245 | 0.755 | 1.5 |
| ## order      | 0.13  | 0.54  | 0.38  | 0.10  | 0.24  | 0.525 | 0.475 | 2.5 |
| ## general    | 0.10  | 0.71  | 0.26  | 0.02  | 0.17  | 0.616 | 0.384 | 1.5 |
| ## offici     | 0.33  | 0.51  | 0.41  | 0.05  | 0.15  | 0.561 | 0.439 | 2.9 |
| ## ago        | 0.38  | 0.25  | 0.21  | 0.45  | 0.21  | 0.499 | 0.501 | 3.5 |
| ## remain     | -0.04 | 0.91  | 0.04  | 0.01  | -0.16 | 0.858 | 0.142 | 1.1 |
| ## stage      | 0.30  | 0.10  | 0.25  | 0.08  | 0.08  | 0.176 | 0.824 | 2.5 |
| ## extinct    | 0.41  | 0.06  | 0.03  | -0.02 | -0.02 | 0.173 | 0.827 | 1.1 |
| ## key        | 0.18  | 0.72  | 0.16  | 0.01  | -0.13 | 0.589 | 0.411 | 1.3 |
| ## conserv    | 0.01  | 0.46  | 0.09  | 0.38  | 0.65  | 0.783 | 0.217 | 2.5 |
| ## european   | 0.29  | 0.53  | -0.04 | 0.15  | 0.23  | 0.441 | 0.559 | 2.2 |
| ## involv     | 0.39  | 0.29  | 0.19  | -0.01 | 0.17  | 0.309 | 0.691 | 2.8 |
| ## event      | 0.79  | 0.27  | 0.09  | 0.08  | 0.19  | 0.737 | 0.263 | 1.4 |
| ## tree       | 0.17  | -0.03 | 0.09  | 0.06  | -0.02 | 0.043 | 0.957 | 1.9 |
| ## amazon     | 0.96  | 0.09  | 0.06  | 0.00  | 0.03  | 0.934 | 0.066 | 1.0 |
| ## area       | 0.51  | 0.09  | 0.30  | 0.21  | 0.02  | 0.404 | 0.596 | 2.1 |
| ## feel       | 0.75  | 0.25  | 0.10  | 0.10  | 0.02  | 0.639 | 0.361 | 1.3 |
| ## line       | 0.37  | 0.69  | 0.20  | 0.17  | 0.28  | 0.760 | 0.240 | 2.3 |
| ## doe        | 0.31  | 0.75  | 0.06  | 0.19  | 0.37  | 0.831 | 0.169 | 2.0 |
| ## growth     | -0.03 | 0.00  | 0.39  | 0.50  | -0.01 | 0.397 | 0.603 | 1.9 |
| ## turn       | 0.52  | 0.59  | 0.15  | 0.24  | -0.07 | 0.696 | 0.304 | 2.5 |
| ## sea        | 0.63  | -0.01 | 0.03  | 0.01  | 0.01  | 0.392 | 0.608 | 1.0 |
| ## page       | 0.12  | 0.90  | 0.00  | -0.01 | 0.34  | 0.939 | 0.061 | 1.3 |
| ## member     | 0.07  | 0.77  | 0.42  | -0.03 | 0.02  | 0.770 | 0.230 | 1.6 |
| ## seen       | 0.54  | 0.53  | 0.11  | 0.06  | 0.15  | 0.606 | 0.394 | 2.3 |
| ## juli       | -0.04 | 0.30  | 0.25  | 0.07  | 0.83  | 0.850 | 0.150 | 1.5 |
| ## three      | 0.20  | 0.56  | 0.23  | 0.41  | 0.20  | 0.614 | 0.386 | 2.8 |
| ## act        | 0.48  | 0.51  | 0.10  | 0.16  | 0.16  | 0.561 | 0.439 | 2.5 |



|               |       |       |       |       |       |       |       |     |
|---------------|-------|-------|-------|-------|-------|-------|-------|-----|
| ## jeremi     | -0.03 | 0.91  | -0.04 | 0.14  | 0.15  | 0.868 | 0.132 | 1.1 |
| ## block      | -0.01 | 0.72  | 0.51  | 0.03  | 0.34  | 0.897 | 0.103 | 2.3 |
| ## close      | 0.49  | 0.63  | 0.24  | 0.18  | 0.04  | 0.727 | 0.273 | 2.4 |
| ## ad         | 0.35  | 0.36  | 0.09  | 0.10  | 0.32  | 0.372 | 0.628 | 3.3 |
| ## amend      | -0.07 | 0.25  | 0.23  | -0.02 | 0.83  | 0.812 | 0.188 | 1.4 |
| ## britain    | 0.03  | 0.27  | 0.01  | 0.42  | 0.32  | 0.352 | 0.648 | 2.7 |
| ## decis      | 0.04  | 0.89  | 0.05  | 0.16  | 0.08  | 0.821 | 0.179 | 1.1 |
| ## british    | 0.01  | 0.37  | 0.01  | 0.17  | 0.45  | 0.373 | 0.627 | 2.2 |
| ## tori       | -0.08 | 0.65  | -0.02 | 0.25  | 0.60  | 0.851 | 0.149 | 2.3 |
| ## demand     | 0.78  | 0.17  | 0.17  | 0.02  | 0.26  | 0.729 | 0.271 | 1.4 |
| ## eu         | -0.04 | 0.63  | -0.02 | 0.22  | 0.46  | 0.656 | 0.344 | 2.1 |
| ## committe   | 0.01  | 0.49  | 0.03  | 0.01  | 0.33  | 0.345 | 0.655 | 1.8 |
| ## small      | 0.52  | 0.06  | 0.22  | 0.49  | -0.04 | 0.568 | 0.432 | 2.4 |
| ## bori       | -0.03 | 0.71  | -0.03 | 0.09  | 0.37  | 0.647 | 0.353 | 1.5 |
| ## johnson    | -0.05 | 0.70  | -0.02 | 0.03  | 0.56  | 0.814 | 0.186 | 1.9 |
| ## farmer     | 0.03  | -0.02 | 0.18  | 0.09  | 0.05  | 0.045 | 0.955 | 1.8 |
| ## farm       | 0.07  | -0.01 | 0.21  | 0.05  | 0.04  | 0.054 | 0.946 | 1.4 |
| ## base       | 0.23  | 0.11  | 0.49  | 0.10  | 0.10  | 0.327 | 0.673 | 1.7 |
| ## got        | 0.45  | 0.47  | 0.35  | 0.20  | 0.22  | 0.631 | 0.369 | 3.7 |
| ## local      | 0.74  | 0.24  | 0.13  | 0.17  | -0.10 | 0.665 | 0.335 | 1.4 |
| ## georg      | 0.04  | 0.08  | -0.06 | 0.90  | -0.02 | 0.823 | 0.177 | 1.0 |
| ## osborn     | -0.02 | 0.02  | -0.10 | 0.91  | -0.04 | 0.844 | 0.156 | 1.0 |
| ## law        | 0.11  | 0.70  | 0.14  | 0.02  | 0.25  | 0.591 | 0.409 | 1.4 |
| ## commit     | 0.19  | 0.63  | 0.31  | 0.04  | 0.00  | 0.529 | 0.471 | 1.7 |
| ## labour     | -0.06 | 0.96  | -0.03 | 0.04  | 0.00  | 0.926 | 0.074 | 1.0 |
| ## chancellor | -0.01 | 0.13  | -0.09 | 0.93  | -0.01 | 0.896 | 0.104 | 1.1 |
| ## second     | 0.34  | 0.77  | 0.23  | 0.00  | 0.18  | 0.786 | 0.214 | 1.7 |
| ## leader     | 0.38  | 0.78  | 0.10  | 0.15  | 0.00  | 0.778 | 0.222 | 1.6 |
| ## full       | 0.25  | 0.76  | 0.07  | 0.26  | 0.20  | 0.753 | 0.247 | 1.7 |
| ## parti      | -0.01 | 0.92  | 0.02  | 0.00  | 0.09  | 0.847 | 0.153 | 1.0 |
| ## photograph | 0.25  | 0.42  | 0.58  | 0.05  | 0.24  | 0.638 | 0.362 | 2.7 |
| ## demonstr   | 0.95  | 0.12  | 0.05  | 0.00  | 0.00  | 0.918 | 0.082 | 1.0 |
| ## save       | 0.35  | 0.28  | 0.04  | 0.54  | -0.06 | 0.497 | 0.503 | 2.3 |
| ## mps        | -0.05 | 0.61  | 0.04  | 0.28  | 0.65  | 0.874 | 0.126 | 2.4 |
| ## pm         | 0.38  | 0.73  | 0.12  | 0.21  | 0.32  | 0.831 | 0.169 | 2.2 |
| ## union      | 0.35  | 0.81  | 0.02  | 0.04  | -0.08 | 0.782 | 0.218 | 1.4 |
| ## ireland    | -0.06 | 0.30  | 0.01  | -0.06 | 0.84  | 0.803 | 0.197 | 1.3 |
| ## bring      | 0.34  | 0.62  | 0.41  | 0.11  | 0.14  | 0.708 | 0.292 | 2.6 |
| ## person     | 0.30  | 0.58  | 0.35  | 0.37  | 0.09  | 0.693 | 0.307 | 3.1 |
| ## read       | 0.61  | 0.52  | 0.20  | 0.10  | 0.04  | 0.692 | 0.308 | 2.3 |
| ## protest    | 0.94  | 0.06  | 0.04  | -0.02 | 0.04  | 0.895 | 0.105 | 1.0 |
| ## statement  | -0.02 | 0.85  | 0.06  | 0.22  | 0.14  | 0.788 | 0.212 | 1.2 |
| ## court      | 0.02  | 0.59  | -0.05 | 0.01  | -0.02 | 0.355 | 0.645 | 1.0 |
| ## march      | 0.78  | 0.06  | 0.07  | 0.24  | 0.05  | 0.679 | 0.321 | 1.2 |
| ## morn       | 0.42  | 0.69  | 0.45  | 0.15  | 0.14  | 0.898 | 0.102 | 2.7 |
| ## minist     | 0.15  | 0.69  | 0.20  | 0.15  | 0.41  | 0.731 | 0.269 | 2.1 |
| ## secretari  | -0.01 | 0.76  | 0.00  | 0.14  | 0.39  | 0.748 | 0.252 | 1.6 |
| ## prime      | 0.09  | 0.66  | 0.22  | 0.13  | 0.34  | 0.628 | 0.372 | 1.9 |
| ## mr         | 0.00  | 0.07  | 0.07  | 0.63  | 0.10  | 0.422 | 0.578 | 1.1 |
| ## corbyn     | -0.02 | 0.90  | -0.07 | 0.20  | -0.08 | 0.862 | 0.138 | 1.1 |
| ## vote       | -0.05 | 0.90  | 0.04  | -0.02 | 0.20  | 0.853 | 0.147 | 1.1 |
| ## parliament | 0.01  | 0.62  | 0.40  | 0.12  | 0.28  | 0.641 | 0.359 | 2.3 |
| ## northern   | -0.04 | 0.30  | 0.02  | 0.05  | 0.85  | 0.809 | 0.191 | 1.3 |
| ## hunt       | -0.05 | 0.26  | 0.02  | -0.02 | 0.87  | 0.822 | 0.178 | 1.2 |

```

## earlier      0.67  0.51  0.18  0.18 -0.01  0.773  0.227  2.2
## execut      0.04  0.57  0.06  0.02  0.38  0.477  0.523  1.8
## join        0.94  0.14  0.10  0.05  0.09  0.916  0.084  1.1
## street      0.77  0.25  0.02  0.19  0.17  0.722  0.278  1.5
## leadership  -0.04  0.73  0.04  0.13  0.37  0.696  0.304  1.6
## ate         -0.02  0.03 -0.08  0.87  0.00  0.768  0.232  1.0
## theresa     -0.07  0.35  0.01  0.18  0.77  0.751  0.249  1.5
## brexit      -0.10  0.84  0.01  0.09  0.34  0.834  0.166  1.4
## twitter.com  0.87  0.34  0.15  0.10  0.17  0.938  0.062  1.5
## hashtag     0.96  0.13  0.11  0.07  0.07  0.956  0.044  1.1
## src         0.96  0.13  0.11  0.07  0.07  0.956  0.044  1.1
## hash        0.96  0.13  0.11  0.07  0.07  0.956  0.044  1.1
## pic.twitter.com 0.95  0.18  0.11  0.08  0.07  0.961  0.039  1.1
## t.co        0.89  0.29  0.15  0.10  0.15  0.936  0.064  1.4
## updat       0.75  0.46  0.35  0.04  0.10  0.909  0.091  2.2
## crowd       0.92  0.08  0.10  0.03  0.02  0.862  0.138  1.0
## septemb     0.85  0.45  0.05 -0.02 -0.05  0.929  0.071  1.5
## pride       0.08  0.02  0.11 -0.02  0.07  0.025  0.975  2.8
## motion      -0.06  0.92  0.02 -0.03 -0.17  0.879  0.121  1.1
## ef          0.07  0.14  0.10 -0.07  0.07  0.045  0.955  3.4
## rebellion   0.42  0.05  0.04 -0.05 -0.02  0.180  0.820  1.1
## greta       0.90  0.05  0.05 -0.02  0.01  0.815  0.185  1.0
## thunberg    0.80  0.04  0.04 -0.03  0.01  0.639  0.361  1.0
## bst         0.67  0.56  0.34  0.04  0.20  0.922  0.078  2.7
## twsrc       0.88  0.34  0.16  0.01  0.18  0.940  0.060  1.5
## etfw        0.88  0.34  0.16  0.01  0.18  0.940  0.060  1.5
## timeupd     -0.02  0.66  0.65  0.01  0.18  0.891  0.109  2.2
## with:block   0.12  0.92 -0.01 -0.02  0.29  0.947  0.053  1.2
##
##
##          RC2    RC1    RC5    RC3    RC4
## SS loadings    121.27 102.69 29.07 29.05 25.62
## Proportion Var    0.24  0.20  0.06  0.06  0.05
## Cumulative Var    0.24  0.44  0.50  0.56  0.61
## Proportion Explained 0.39  0.33  0.09  0.09  0.08
## Cumulative Proportion 0.39  0.73  0.82  0.92  1.00
##
## Mean item complexity = 2.1
## Test of the hypothesis that 5 components are sufficient.
##
## The root mean square of the residuals (RMSR) is 0.05
## with the empirical chi square 175361.9 with prob < 0
##
## Fit based upon off diagonal values = 0.99

```

Overall, we found our analysis to be helpful in helping us identify frames. However, our ability to extrapolate meaningful results was hindered by the poor quality of data and the need for further refinement thereof. Most obviously, we still omitted several instances of generic copyright phrases, which resulted in the tokens generated by these phrases to be the determining factors of our phrases. We intend to address these issues ahead of the execution of the final analysis.