# **Results of LDA Gibbs Sampling**

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# **LDA Update Equations**

$$P(z_{i} = j | \mathbf{z}_{-i}, \mathbf{w}) \qquad \propto P(w_{i} | z_{i} = j, \mathbf{z}_{i}, \mathbf{w}_{-i}) P(z_{i} = j | \mathbf{z}_{-i})$$

$$= \frac{n_{-i,j}^{(w_{i})} + \beta}{n_{-i,j}^{(\cdot)} + W\beta} \frac{n_{-i,j} + \alpha}{n_{-i,(\cdot)} + K\alpha}$$

$$= \frac{n_{-i,j}^{(t)} + \beta}{n_{-i,j}^{(\cdot)} + W\beta} \frac{n_{-i,j}^{d_{i}} + \alpha}{n_{-i,-}^{d_{i}} + K\alpha} [t = w_{i}, t \in \{1, \dots, W\}]$$

$$= \frac{n_{-i,j}^{(t)} + \beta_{t}}{\sum_{t=1}^{W} n_{-i,j}^{(t)} + \beta_{t}} \frac{n_{-i,j}^{d_{i}} + \alpha}{\sum_{k=1}^{K} n_{-i,k}^{d_{i}} + \alpha_{k}}$$
[Considering asymmetric parameter for Dir](13)
$$(14)$$

 $n^{(.)}_{-i,j}$  is total number of words assigned to topic j not including current one(i<sup>th</sup> word).  $n^{(wi)}_{-i,j}$  is the number of instances of word  $w_i$  assigned to topic j

 $\beta$  is the hyperparameter that determines  $\Phi$ 

 $\alpha \:$  is the hyperparameter that determine  $\Theta$ 

Sum in the denominator is taken as we need to consider all parameter and the numerator gives the weight of current word to be in the given topic (in first term) and in second term gives the probability of prior( given our experience).

#### **CODE FOR GIBBS SAMPLER**

```
* This demonstrates the nature of Gibbs sampling, namely some pop and push action on a stack (of counting variables).
* @class_param z[][]
* id of topic for document index "m" and word index "n", called the "topic assignment" variable
* @class_param nw[][]
* frequency of word "w" in topic "topic"
* @class_param nd[][]
* frequency of document "m" in topic "topic"
* @class_param nwsum[]
* total number of words in topic "topic"
* @class_param V
* total number of unique words in all topics, called "vocabulary"
* @class_param K
* total number of topics
* We sample a topic z_i from the full conditional probability distribution:
* p(z_i=j | z_\i, w) =
     (n_{i, j(w_i)} + \beta) / (n_{i, j(i)} + V * \beta) *
    (n_{i, j(d_i)} + \alpha) / (n_{i, (d_i)} + K * \alpha)
* Here z_\i indicates all z except for z_i.
* @param m
* document, index of the document to sample
* @param n
 word, index of the word to sample (does not need to occur in the document)
int model::sampling(int m, int n) {
    // remove z_i from the count variables
    int topic = z[m][n];
    int w = ptrndata->docs[m]->words[n];
    nw[w][topic] -= 1;
    nd[m][topic] -= 1;
    nwsum[topic] -= 1;
    ndsum[m] -= 1;
    double Vbeta = V * beta;
    double Kalpha = K * alpha;
    // do multinomial sampling via cumulative method
    for (int k = 0; k < K; k++) {
        p[k] = (nw[w][k] + beta) / (nwsum[k] + Vbeta) *
                     (nd[m][k] + alpha) / (ndsum[m] + Kalpha);
```

// cumulate multinomial parameters, sum will be in p[K-1]

// scaled sample because of unnormalized p[]

double u = ((double)random() / RAND\_MAX) \* p[K - 1];

for (int k = 1; k < K; k++) {
 p[k] += p[k - 1];</pre>

}

```
// get topic with probability beyond u
for (topic = 0; topic < K; topic++) {
    if (p[topic] > u) {
        break;
    }
}

// add newly estimated z_i to count variables
    nw[w][topic] += 1;
    nd[m][topic] += 1;
    nwsum[topic] += 1;
    ndsum[m] += 1;

return topic;
}
```

Here we can see the usage of LDA update equation (multinomial sampling via cumulative method)

#### **CODE FOR FORMATTING DATA**

```
import re
from collections import Counter
def get_docs(filepath):
  files = []
  with open(filepath,"r") as f:
    docs = re.split("<TEXT>",f.read())
  for i in docs:
    s = i.split("</TEXT>")
    for j in s:
       if "</DOC>" in j or "<DOCNO>" in j:
          continue
       files.append(j)
  return files
def create_file(files):
  words = []
  with open("formated.txt", "w") as o:
    count = len(files)
    o.write(str(count))
    for f in files:
       words = (re.sub(r'[\land \w]', '', f).split())
       english_words = map(lambda x:x.lower(), words)
       regex = re.compile(r'\d+(\.\d*)?')
       english_words = filter(lambda i: (not regex.search(i) or i=='.'),english_words)
       eg = Counter(english_words)
```

```
words_sort = sorted(eg.keys())
    o.write("\n")
    for e in words_sort:
        if len(e) < 3:
            continue
        o.write(e + " ")

a = get_docs("ap.txt")
create_file(a)</pre>
```

#### Result of test data

we are getting similar 10 words which are of same topics. The LDA gibbs sampling works. Increasing number of topics slows down the code but gives results are not good as before. So the data is constant but number of topics are increasing. Therefore as the number of topics increases we could expect the result to be little bad as everything else is same. This could be because the concentration of words to different topics decreases.

Results for number of topics = 20, 50, 100

```
1 Topic Oth:
      latino 0.005152
 3
      black
            0.003680
 4
      promotion 0.002392
 5
      counselor
                0.002392
6
      affirm 0.002208
      action 0.002208
 7
      district 0.002024
8
9
      associ 0.001656
      school 0.001656
10
11
      branch 0.001472
12 Topic 1th:
13
      baker
            0.001287
14
      photo 0.001103
15
      driver 0.001103
16
      guard 0.001103
      run 0.001103
17
18
      candid
             0.001103
      primari 0.001103
19
20
      poll 0.001103
      quilti 0.000919
21
22
      illeg 0.000919
23 Topic 2th:
      six 0.000991
24
25
      determin 0.000793
26
      symphoni
               0.000793
      widow 0.000793
27
      displai 0.000595
28
29
      classroom 0.000595
30
      brief 0.000595
      wartim 0.000595
31
32
      persian 0.000595
      ariz 0.000595
33
34 Topic 3th:
35
      fullerton 0.000797
36
      us 0.000598
```

```
~/gibbs-lda/models/casestudy
 1 Topic Oth:
      offer 0.001012
      announc 0.000607
       total 0.000607
      soup 0.000405
 5
      madelein 0.000405
6
      imposs 0.000405
8
      dip 0.000405
9
      cuisin 0.000405
10
      slain 0.000405
      shiite 0.000405
11
12 Topic 1th:
      neck 0.000605
13
14
      ге 0.000605
      southern 0.000605
15
      persona; 0.000605
16
      couple 0.000605
17
      attempt 0.000403
18
      technologi 0.000403
19
      mahogani 0.000403
20
21
      shultz 0.000403
      cease 0.000403
22
23 Topic 2th:
      class 0.000802
24
25
      strai 0.000601
26
      tie 0.000601
      paramed 0.000601 congress 0.000601
27
28
      vot 0.000601
san 0.000601
29
30
      indee 0.000601
dishe 0.000601
31
32
      dishe
      washington 0.000601
33
34 Topic 3th:
      clos 0.000602
innoc 0.000602
35
36
```

```
11
      citi
             0.005453
12 Topic 1th:
13
      monkei
               0.000611
14
      river
              0.000611
      plu 0.000611
15
      homemad
               0.000407
16
      gilbert
              0.000407
17
18
      session
               0.000407
19
      rail 0.000407
      central 0.000407
20
21
      lyon 0.000407
             0.000407
22
      fame
23 Topic 2th:
24
      enjoi
              0.000611
25
              0.000611
      trade
      length 0.000611
26
      plc 0.000407
27
28
      concord 0.000407
      worse 0.000407
outlet 0.000407
29
30
31
      undersecretari 0.000407
32
      carter 0.000407
33
      apprehens
                  0.000407
34 Topic 3th:
35
      bundi 0.001418
             0.000608
36
      play
            0.000608
37
      raid
      rose 0.000608
38
      uc 0.000608
39
      class 0.000608
40
41
      clam
             0.000405
      consult 0.000405
42
43
      freij
             0.000405
44
      trespass
                0.000405
45 Topic 4th:
              0.000609
46
      troop
```

#### **Default results of Test data**

secur 0.009412 sell 0.008998 invest 0.008792 bas 0.008275 financi 0.008275 earn 0.007862 manag 0.007759 feder 0.006932 execut 0.006829 bui 0.006622 acquisit 0.006519 corpor 0.006416 york 0.006002 sav 0.005899 subject 0.005796 offer 0.005796 vice 0.005693 share 0.005589 monei 0.005589 american 0.005486 chairman 0.005383 length 0.005279 billion 0.005279 pacif 0.005176 purchas 0.005073 market 0.004969 nation 0.004969 account 0.004866 profit 0.004763 plan 0.004659 announc 0.004659 own 0.004556 system 0.004556 sold 0.004453 acquir 0.004453 loss 0.004349 Topic 1th: children 0.028002 women 0.026341 child 0.021909 program 0.018862 mother 0.018862 birth 0.014708 abort 0.013877 famili 0.012769 parent 0.012492 care 0.011661 drug 0.010553

clinic 0.010276 studi 0.008060 commun 0.007783 age 0.007783 control 0.007506 differ 0.006398 adult 0.006398 connor 0.005844 father 0.005844 babi 0.005567 visit 0.005290 teen 0.005013 prevent 0.005013 deliveri 0.004736 rate 0.004459 contracept 0.004459 plan 0.004182 research 0.003628 support 0.003351 coordin 0.003351 address 0.003351 deliv 0.003351 health 0.003351 religi 0.003074 ager 0.003074 train 0.003074 violenc 0.003074 red 0.003074 method 0.002797 major 0.002797 infant 0.002520 alcohol 0.002520 dr 0.002520 survei 0.002520 past 0.002520 adolesc 0.002520 observ 0.002520 local 0.002520 scot 0.002520 Topic 2th: miami 0.035397 super 0.025241 bowl 0.022608 montoya 0.013580 munoz 0.011323 committe 0.009066 mexican 0.006432 nfl 0.006432

```
hotel 0.006432
      owner 0.006056
      florida 0.006056
      robbie 0.004928
      refuge 0.004552
      little 0.004175
      citi 0.004175
      mile 0.003799
      organ 0.003423
      course 0.003423
      stadium 0.003047
      vip 0.003047
      host 0.003047
      local 0.003047
      football 0.003047
      parti 0.003047
      immigr 0.003047
      subject 0.003047
      visitor 0.002671
      anthoni 0.002671
      riot 0.002671
      mark 0.002671
      restaur 0.002671
      nicaraguan 0.002671
      table 0.002295
      project 0.002295
      ticket 0.002295
      dade 0.002295
      concern 0.002295
      club 0.002295
      dolphin 0.002295
      patti 0.001918
      privat 0.001918
      arriv 0.001918
      happi 0.001918
      pete 0.001918
      joe 0.001918
      guard 0.001918
      offens 0.001918
      sight 0.001918
      mov 0.001918
      max 0.001918
Topic 3th:
      polic 0.058306
      offic 0.027720
      arrest 0.020410
      kill 0.015601
      found 0.012138
```

attack 0.011177 victim 0.009638 depart 0.009445 shot 0.009253 car 0.009060 jail 0.008676 jackson 0.008291 sherif 0.008099 bodi 0.007522 suspect 0.007522 fridai 0.007329 investig 0.007329 counti 0.007137 author 0.006752 robberi 0.006560 death 0.006367 shoot 0.006367 identifi 0.005983 guard 0.005983 gang 0.005790 subject 0.005790 carri 0.005598 woman 0.005598 incid 0.005598 hand 0.005406 wound 0.005213 search 0.005021 call 0.005021 charge 0.004636 home 0.004636 believ 0.004444 night 0.004251 deputi 0.004251 releas 0.004251 murder 0.003867 fir 0.003867 cocain 0.003674 teen 0.003674 length 0.003674 boi 0.003674 staf 0.003482 condition 0.003482 sundai 0.003482 head 0.003482 sgt 0.003289 Topic 4th: charge 0.021264 fraud 0.014183

indict 0.013298 investig 0.013298 count 0.011528 contract 0.010422 juri 0.009094 grand 0.008873 former 0.008430 offici 0.008209 district 0.007988 compani 0.007988 guilti 0.007988 feder 0.007103 alleg 0.007103 govern 0.007103 charg 0.007103 attornei 0.006881 teledvn 0.006881 berlin 0.006439 month 0.006439 parkin 0.006218 lackner 0.006218 plead 0.006218 navi 0.005996 consult 0.005775 employe 0.005111 plea 0.005111 offic 0.005111 conspiraci 0.005111 defens 0.004890 paid 0.004890 allegedli 0.004669 hazeltin 0.004669 docum 0.004669 fine 0.004669 contractor 0.004226 feloni 0.004226 inform 0.004226 crimin 0.004005 electron 0.004005 thursdai 0.004005 illeg 0.003784 accus 0.003784 evid 0.003784 prosecutor 0.003784 pai 0.003562 agree 0.003562 million 0.003562 fridai 0.003562

# Topic 5th: oklahoma 0.026178 ncaa 0.018068 univers 0.010859 athlet 0.009958 barri 0.008606 violat 0.007705 penalti 0.007254 dyke 0.006353 death 0.006353 probat 0.005902 clemson 0.005452 zzzz 0.005452 bowl 0.005001 elig 0.005001 investig 0.005001 recruit 0.005001 inform 0.004551 provid 0.004551 cowboi 0.004551 switzer 0.004551 sanction 0.004100 roddi 0.004100 football 0.003650 natur 0.003650 happen 0.003650 immun 0.003650 includ 0.003199 cheate 0.003199 final 0.002748 payment 0.002748 scholarship 0.002748 ford 0.002748 cooper 0.002748 coache 0.002748 believ 0.002748 governor 0.002748 remain 0.002748 rel 0.002298 appar 0.002298 car 0.002298 left 0.002298 travel 0.002298 oper 0.002298 lead 0.002298 restor 0.002298 sever 0.002298 signal 0.002298

booster 0.002298 collegi 0.002298 prospect 0.002298 Topic 6th: sikh 0.005839 india 0.005198 house 0.003273 low 0.003273 trophi 0.003273 hang 0.003273 couple 0.002631 coast 0.002631 upi 0.002631 fare 0.002631 gandhi 0.001989 singh 0.001989 kill 0.001989 farmer 0.001989 fall 0.001989 championship 0.001989 demand 0.001989 regard 0.001989 widespread 0.001989 spin 0.001348 terribl 0.001348 prayer 0.001348 mid 0.001348 titl 0.001348 overcom 0.001348 consumpt 0.001348 viejo 0.001348 cost 0.001348 assassin 0.001348 expans 0.001348 origin 0.001348 nativ 0.001348 requir 0.001348 nuclear 0.001348 suspend 0.001348 phil 0.001348 concern 0.001348 cultur 0.001348 book 0.001348 beverli 0.001348 hardi 0.001348 pro 0.001348 sale 0.001348 scope 0.001348

specialti 0.001348 third 0.001348 outsid 0.001348 mark 0.001348 delight 0.001348 thoma 0.001348 Topic 7th: bundi 0.023705 check 0.013380 florida 0.011659 smog 0.011229 execut 0.009938 car 0.009078 oper 0.008647 bureau 0.005206 killer 0.005206 issu 0.005206 certif 0.004775 fine 0.004775 repair 0.004775 inspect 0.004345 station 0.004345 owner 0.004345 shop 0.004345 undercov 0.004345 ted 0.004345 inspector 0.004345 california 0.004345 citat 0.003915 hour 0.003915 fla 0.003485 sacramento 0.003485 vehicl 0.003485 dead 0.003055 death 0.003055 washington 0.002624 burn 0.002624 properli 0.002624 achiev 0.002624 test 0.002624 emiss 0.002624 martinez 0.002624 crowd 0.002194 jim 0.002194 boi 0.002194 pollution 0.002194 chair 0.002194 bring 0.002194

run 0.002194 visit 0.002194 holidai 0.001764 sign 0.001764 wash 0.001764 blue 0.001764 automot 0.001764 associ 0.001764 sight 0.001764 Topic 8th: round 0.024317 tournam 0.024317 hole 0.017029 shot 0.014600 tour 0.013871 plai 0.013385 par 0.012171 golf 0.011442 win 0.010956 put 0.010470 course 0.010227 leader 0.009742 finish 0.007555 pate 0.007555 won 0.007312 dai 0.007069 jone 0.006826 lead 0.006583 chip 0.006340 fridai 0.005612 player 0.005369 stroke 0.005369 kite 0.005126 datelin 0.005126 barber 0.005126 green 0.004883 thursdai 0.004883 winner 0.004640 pro 0.004640 sundai 0.004640 steve 0.004397 playof 0.004397 yard 0.004154 champion 0.004154 pga 0.004154 la 0.003911 hit 0.003911 bogei 0.003911

monei 0.003911 birdi 0.003668 douglass 0.003668 foot 0.003668 ball 0.003668 birdie 0.003668 costa 0.003668 wadkin 0.003425 beach 0.003425 bob 0.003425 crenshaw 0.003182 david 0.003182 vietnam 0.013895

### Topic 9th:

cambodia 0.012298 china 0.012298 vietnames 0.012298 relat 0.009103 resist 0.008571 aid 0.008039 cambodian 0.007506 foreign 0.007506 minist 0.006442 talk 0.005909 faction 0.005377 war 0.004312 militari 0.004312 thailand 0.004312 intern 0.004312 prince 0.003780 chines 0.003780 head 0.003780 khmer 0.003780 beij 0.003780 rouge 0.003780 li 0.003247 countri 0.003247 sponsor 0.003247 troop 0.003247 force 0.003247 parti 0.002715 confer 0.002715 ierri 0.002715

hanoi 0.002715 power 0.002715 sihanouk 0.002715 septemb 0.002715 norodom 0.002715

settlem 0.002183 statu 0.002183 mid 0.002183 withdraw 0.002183 bangkok 0.002183 evan 0.002183 backer 0.002183 conflict 0.002183 action 0.002183 chile 0.002183 topic 0.001650 cutof 0.001650 lift 0.001650 shed 0.001650 turmoil 0.001650 Topic 10th: mcknight 0.021226 olymp 0.016550 record 0.011563 won 0.010940 women 0.010317 win 0.009693 evan 0.009070 sport 0.009070 world 0.009070 medal 0.008758 meet 0.008758 meter 0.008758 gold 0.008447 athlet 0.007823 track 0.007823 dei 0.007512 mater 0.007200 ashford 0.006888 janet 0.006576 steroid 0.006265 championship 0.005953 american 0.005953 single 0.005641 field 0.005641 barne 0.005330 event 0.005018 jump 0.005018 evelyn 0.004706 run 0.004706 pound 0.004083 indoor 0.004083 title 0.004083

randi 0.003771 seoul 0.003771 invit 0.003771 varsiti 0.003771 feet 0.003771 compet 0.003460 placentia 0.003460 throw 0.003460 mark 0.003460 foster 0.003460 runner 0.003460 straight 0.003148 age 0.003148 champion 0.003148 resign 0.003148 finish 0.003148 ran 0.002836 medalist 0.002836 Topic 11th: campaign 0.028669 run 0.015860 candid 0.012093 mayor 0.011340 oscar 0.010963 academi 0.010963 elect 0.008703 offic 0.008326 race 0.007949 jackson 0.007949 yaroslavski 0.007572 council 0.006819 polit 0.006442 contribut 0.006442 citi 0.006442 paper 0.006065 advertis 0.005689 nomin 0.005689 help 0.005689 councilman 0.005689 light 0.005312 voter 0.005312 releas 0.004935 lake 0.004935 limit 0.004935 strategi 0.004558 studio 0.004558 illeg 0.004182 district 0.004182

monei 0.003805 statut 0.003428 gift 0.003428 science 0.003428 russell 0.003428 audit 0.003052 prosecut 0.003052 auction 0.003052 ad 0.002675 reelect 0.002675 season 0.002675 hollywood 0.002675 seate 0.002675 market 0.002675 olmo 0.002675 galant 0.002675 martinez 0.002675 mcgrath 0.002298 door 0.002298 award 0.002298 Topic 12th: homeless 0.035866 force 0.019219 people 0.017706 park 0.011653 task 0.008626 monica 0.006104 street 0.006104 dec 0.006104 kahn 0.006104 shelter 0.005599 stand 0.004590 chavez 0.004590 effort 0.004086 businessmen 0.004086 hous 0.003582 sleep 0.003582 palisad 0.003582 commit 0.003582 monei 0.003077 trash 0.003077 pick 0.003077 estim 0.002573 organ 0.002573 transient 0.002573

> gather 0.002573 sheridan 0.002068

crimin 0.003805

citi 0.002068 third 0.002068 nonprofit 0.002068 meanwhil 0.002068 encourag 0.002068 sponsor 0.002068 rubbish 0.002068 format 0.002068 overse 0.002068 variou 0.002068 lenient 0.001564 pa 0.001564 picnic 0.001564 contract 0.001564 constitut 0.001564 skeptic 0.001564 handout 0.001564 drop 0.001564 combin 0.001564 overlook 0.001564 bridge 0.001564 repres 0.001564 plastic 0.001564 cloth 0.001564 Topic 13th: scor 0.035272 league 0.027237 lead 0.021169 quarter 0.015266 vallei 0.011659 rebound 0.011331 orang 0.010839 goal 0.009527 christian 0.009035 game 0.009035 la 0.008543 hill 0.008379 garden 0.008215 grove 0.008215 host 0.008051 visit 0.007559 view 0.007559 basketbal 0.006575 half 0.006412 plai 0.006412 ad 0.006084 kennedi 0.006084 quinta 0.005756

boi 0.005592 led 0.005592 savanna 0.005428 saddleback 0.005428 minut 0.005264 mike 0.005100 victori 0.005100 school 0.005100 beach 0.005100 length 0.004936 lo 0.004936 mesa 0.004772 save 0.004772 girl 0.004608 mater 0.004608 fourth 0.004608 rancho 0.004608 forward 0.004444 santa 0.004444 tustin 0.004444 dei 0.004280 ocean 0.004280 el 0.004280 santiago 0.004116 swanwick 0.004116 guard 0.004116 laguna 0.004116 Topic 14th: anti 0.009317 byrd 0.009317 rei 0.008772 incid 0.007137 activ 0.007137 hous 0.007137 commiss 0.006593 tenant 0.006048 drug 0.005503 sign 0.004958 dealer 0.004958 vandal 0.004413 lehrer 0.004413 act 0.004413 categori 0.003868 california 0.003868 retali 0.003324 bomb 0.003324 increas 0.003324 secur 0.003324

complex 0.002779 harass 0.002779 sent 0.002779 threate 0.002779 properti 0.002779 safeti 0.002234 brief 0.002234 univers 0.002234 nazi 0.002234 apart 0.002234 fear 0.002234 dec 0.002234 reiner 0.002234 overal 0.002234 donna 0.002234 synagogu 0.002234 lease 0.002234 skinhead 0.002234 vigor 0.001689 arson 0.001689 garcia 0.001689 explosion 0.001689 weeklong 0.001689 vocalist 0.001689 five 0.001689 telephon 0.001689 pipe 0.001689 feb 0.001689 hurt 0.001689 Topic 15th: william 0.026786 meet 0.016549 brought 0.006313 holidai 0.006313 sponsor 0.006313 outsid 0.005175 urban 0.004606 afternoon 0.004606 jack 0.003469 reggie 0.003469 posit 0.002900 shield 0.002900 lehman 0.002900 shamrock 0.002900 will 0.002900 davi 0.002332 polaroid 0.002332

league 0.003324

nine 0.002332 suppos 0.002332 perez 0.002332 clark 0.002332 mercuri 0.002332 aspect 0.001763 sponsorship 0.001763 role 0.001763 foster 0.001763 histori 0.001763 princip 0.001763 contain 0.001763 league 0.001763 buri 0.001763 shouldn 0.001763 maria 0.001763 hutton 0.001763 fellow 0.001763 kemp 0.001763 trial 0.001763 signal 0.001763 lawrenc 0.001763 toughest 0.001763 agenda 0.001763 ideologi 0.001194 avoid 0.001194 galleri 0.001194 councilman 0.001194 promin 0.001194 chariti 0.001194 hide 0.001194 bless 0.001194 appoint 0.001194 Topic 16th: station 0.030302 contest 0.016911 radio 0.009968 listen 0.009472 prize 0.007489 ga 0.006001 fm 0.005505 competit 0.005009 promotion 0.004513 foot 0.004017 fill 0.004017 jen 0.003521 island 0.003521 win 0.003521

roll 0.003025 denver 0.003025 cash 0.003025 unoc 0.003025 doug 0.003025 thompson 0.002529 change 0.002529 director 0.002529 exud 0.002529 pool 0.002529 balboa 0.002529 award 0.002033 billion 0.002033 war 0.002033 barbecu 0.002033 outsid 0.002033 male 0.002033 tom 0.002033 condemn 0.002033 reviv 0.002033 prefer 0.002033 spent 0.002033 marriot 0.001537 sauce 0.001537 cream 0.001537 corp 0.001537 swallow 0.001537 feder 0.001537 drop 0.001537 gari 0.001537 door 0.001537 blow 0.001537 gallon 0.001537 sweep 0.001537 howard 0.001537 eate 0.001537 Topic 17th: exercis 0.011889 honor 0.011012 fonda 0.010134 tape 0.009696 video 0.009696 secur 0.009696 enemi 0.007941 intens 0.007502 medal 0.007502 cia 0.006625 homosexu 0.006625

home 0.006186 jane 0.006186 clearanc 0.005747 grenad 0.005747 aerob 0.005747 servic 0.005308 fire 0.005308 low 0.004870 risk 0.003992 top 0.003992 wound 0.003992 dub 0.003554 soldier 0.003554 smith 0.003115 list 0.003115 rocket 0.003115 holder 0.003115 gai 0.003115 advanc 0.003115 armi 0.002676 safe 0.002676 direct 0.002676 jr 0.002676 workout 0.002676 davidson 0.002676 jacob 0.002676 recipi 0.002237 inaugur 0.002237 distinguish 0.002237 beyond 0.002237 duti 0.002237 numer 0.002237 market 0.002237 develop 0.002237 lower 0.002237 award 0.002237 decor 0.002237 muscle 0.002237 blanket 0.002237 Topic 18th: chairman 0.009599 retir 0.007354 public 0.006792 veteran 0.006231 human 0.005670 review 0.005108 relat 0.005108 servic 0.005108

util 0.004547 budget 0.004547 affair 0.003986 government 0.003986 claim 0.003986 corpor 0.003986 resourc 0.003986 educ 0.003986 agricultur 0.003424 insur 0.003424 energi 0.003424 organ 0.003424 fiscal 0.003424 appropri 0.003424 judiciari 0.002863 bank 0.002863 local 0.002863 transport 0.002863 safeti 0.002863 commerc 0.002863 health 0.002863 senat 0.002863 committe 0.002302 employ 0.002302 assign 0.002302 govern 0.002302 wildlif 0.002302 industri 0.002302 alan 0.002302 manag 0.002302 method 0.002302 repeat 0.001740 hart 0.001740 roberti 0.001740 position 0.001740 toxic 0.001740 newton 0.001740 visibl 0.001740 glendal 0.001740 torre 0.001740 watson 0.001740 green 0.001740 Topic 19th: polit 0.014218 leader 0.011736 china 0.010672 tibet 0.010672 demonstr 0.010672

tibetan 0.009963 religi 0.009963 protest 0.009609 march 0.009254 anti 0.008190 chines 0.007836 fang 0.007481 opposit 0.007481 independ 0.007127 thursdai 0.006418 freedom 0.006063 releas 0.005708 monk 0.005354 monasteri 0.005354 sandinista 0.005354 prison 0.004999 sundai 0.004999 pro 0.004645 late 0.004290 visit 0.004290 dissid 0.003936 revolut 0.003936 parti 0.003936 restrict 0.003581 anniversari 0.003581 nicaragua 0.003581 new 0.003581 activist 0.003226 temple 0.003226 communist 0.003226 speak 0.003226 lhasa 0.003226 foreign 0.002872 crowd 0.002872 di 0.002872 western 0.002872 death 0.002872 carri 0.002872 graphic 0.002872 beij 0.002517 occasion 0.002517 imprison 0.002517 exil 0.002517 democraci 0.002517 people 0.002517 Topic 20th: budget 0.025921 million 0.024119

program 0.024119

fund 0.023219

tax 0.020967

cut 0.019615

california 0.015562

deukmejian 0.014436

propos 0.013535

increas 0.013084

spend 0.011958

plan 0.011958

monei 0.011508

billion 0.011058

cost 0.011058

governor 0.009706

health 0.008806

council 0.008806

receiv 0.008355

school 0.007004

servic 0.007004

financ 0.006328

taxe 0.006103

care 0.006103

project 0.006103

feder 0.005878

fiscal 0.005878

proposit 0.005878

fee 0.005653

welfar 0.005653

reduct 0.005427

deficit 0.005427

revenu 0.005202

provid 0.004977

current 0.004752

famili 0.004752

expect 0.004527

legislatur 0.004076

director 0.004076

subject 0.004076

indig 0.003851

elimin 0.003851

requir 0.003851

initi 0.003626

incom 0.003626

raise 0.003401

support 0.003401

includ 0.003175

crisi 0.003175

offic 0.003175

# Topic 21th: wilson 0.040508 age 0.012188 corpor 0.010165 compani 0.009659 monarch 0.006625 discrimin 0.006119 vice 0.005613 warehous 0.005613 presid 0.005613 bruno 0.004602 dick 0.004602 damag 0.003591 william 0.003085 houston 0.003085 duti 0.003085 expens 0.003085 supervisor 0.003085 termin 0.003085 quit 0.003085 paper 0.003085 physic 0.002579 boss 0.002579 introduc 0.002579 throughout 0.002579 hot 0.002579 fix 0.002579 demean 0.002073 uc 0.002073 america 0.002073 bother 0.002073 employ 0.002073 award 0.002073 version 0.002073 wall 0.002073 event 0.002073 worker 0.002073 half 0.002073 polici 0.002073 bradlei 0.002073 equal 0.002073 advanc 0.001568 shakespear 0.001568 punit 0.001568 obituari 0.001568 formal 0.001568 equat 0.001568 keep 0.001568

dollar 0.001568 guilti 0.001568 hang 0.001568 Topic 22th: disk 0.024202 program 0.014730 drive 0.013782 test 0.013309 comput 0.012835 hard 0.011414 data 0.010467 advanc 0.006678 file 0.006204 reform 0.005731 pc 0.004310 bad 0.004310 move 0.004310 technician 0.004310 perform 0.004310 stor 0.004310 hour 0.003836 failur 0.003836 change 0.003836 featur 0.003836 histori 0.003836 instanc 0.003363 plac 0.003363 richard 0.003363 run 0.003363 prevent 0.003363 portion 0.003363 minut 0.002889 track 0.002889 publish 0.002889 weak 0.002889 compat 0.002889 locat 0.002415 phone 0.002415 fail 0.002415 spe 0.002415 balanc 0.002415 magnet 0.002415 recommend 0.002415 mark 0.001942 vital 0.001942 type 0.001942 install 0.001942 bylin 0.001942

reilli 0.001942 none 0.001942 take 0.001942 crash 0.001942 suggest 0.001942 technic 0.001942 Topic 23th: water 0.045285 test 0.024121 ramona 0.010984 level 0.009159 ground 0.008794 drink 0.007700 home 0.007335 street 0.006605 epa 0.006240 public 0.006240 studi 0.005510 qualiti 0.005510 consum 0.005510 close 0.005145 board 0.005145 oil 0.005145 drill 0.005145 suppli 0.004780 check 0.004780 fail 0.004780 plume 0.004415 limit 0.004415 pollution 0.004415 effect 0.004415 citizen 0.004051 wildlif 0.004051 presenc 0.003686 ago 0.003686 concern 0.003686 redevelop 0.003321 dairi 0.003321 owner 0.002956 read 0.002956 debat 0.002956 avenu 0.002956 region 0.002956 privat 0.002591 clean 0.002591 air 0.002591 find 0.002591 river 0.002226

concentr 0.002226 accur 0.002226 fine 0.002226 reli 0.002226 refug 0.002226 properti 0.002226 harm 0.002226 apart 0.002226 august 0.002226 Topic 24th: insur 0.060477 claim 0.026680 rate 0.021185 california 0.019811 increas 0.012942 injuri 0.011018 compani 0.009919 proposit 0.009919 medic 0.009095 agent 0.009095 auto 0.008545 accid 0.007721 bill 0.006622 doctor 0.006072 pai 0.006072 cost 0.006072 farm 0.006072 automobil 0.005523 industri 0.005523 attornei 0.005248 consum 0.005248 gillespi 0.004973 system 0.004699 rosenfield 0.004699 lawyer 0.004424 legal 0.004424 run 0.004424 court 0.004424 victim 0.004149 fraud 0.004149 commission 0.004149 dollar 0.003874 suggest 0.003874 polici 0.003874 damag 0.003874 coverag 0.003599 fil 0.003599 lawsuit 0.003325

determin 0.003050 cut 0.003050 car 0.003050 pain 0.003050 driv 0.002775 excess 0.002775 suprem 0.002775 bodili 0.002775 trial 0.002775 sell 0.002775 assn 0.002775 collect 0.002500 Topic 25th: drug 0.034767 bennet 0.026698 lab 0.023190 fuji 0.022488 profession 0.011612 film 0.009858 test 0.008806 owner 0.007753 friend 0.007052 alexand 0.006701 japanes 0.005648 photograph 0.004947 color 0.004947 commun 0.004947 interview 0.004245 product 0.004245 anti 0.004245 resid 0.003894 letter 0.003543 countri 0.003543 technic 0.003193 chapman 0.003193 help 0.003193 beer 0.003193 regard 0.003193 david 0.002842 competit 0.002842 texa 0.002842 graduat 0.002842 kodak 0.002842 spent 0.002842 execut 0.002842 market 0.002491 austin 0.002491 lopez 0.002491

tell 0.002491 traffick 0.002491 produc 0.002491 mid 0.002491 william 0.002491 indee 0.002491 harvard 0.002491 laboratori 0.002491 miller 0.002491 lowe 0.002140 parti 0.002140 commerci 0.002140 wrote 0.002140 process 0.002140 intent 0.002140 Topic 26th: san 0.144952 diego 0.098980 vista 0.015726 center 0.014044 bell 0.012923 aztec 0.007877 loma 0.007877 la 0.007877 sdsu 0.006475 set 0.005915 jolla 0.005074 forward 0.004513 brandenburg 0.004513 break 0.003952 girl 0.003952 saturdai 0.003952 vermont 0.003952 robert 0.003672 usiu 0.003672 hawaii 0.003392 calavita 0.003392 section 0.003392 bai 0.003392 lee 0.003392 citi 0.003392 north 0.003112 chang 0.003112 perri 0.003112 director 0.002831 heritag 0.002831 amp 0.002831 home 0.002831

filer 0.002831 vince 0.002551 henri 0.002551 powai 0.002551 jan 0.002551 digest 0.002551 review 0.002551 sail 0.002271 colorado 0.002271 southwest 0.002271 chula 0.002271 eastern 0.001990 ring 0.001990 word 0.001990 minor 0.001990 parent 0.001990 newman 0.001990 palomar 0.001710 Topic 27th: time 0.017821 bylin 0.017675 offici 0.015766 subject 0.015276 length 0.015276 text 0.014787 headlin 0.014591 public 0.010137 report 0.009207 word 0.008864 people 0.008717 staf 0.008668 call 0.008522 writer 0.007836 month 0.007690 govern 0.007690 datelin 0.006711 week 0.006466 agenc 0.006368 includ 0.006172 continu 0.006074 nation 0.006074 accord 0.005878 major 0.005487 issue 0.005487 administr 0.005291 presid 0.005291 depart 0.005291 law 0.005193

organ 0.005144 unit 0.004900 decision 0.004851 repres 0.004802 effort 0.004704 allow 0.004606 ad 0.004606 support 0.004557 dai 0.004508 tuesdai 0.004214 concern 0.004214 requir 0.004214 offic 0.004165 director 0.004165 result 0.004116 term 0.004067 propos 0.004067 meet 0.004019 action 0.004019 question 0.003823 involv 0.003823 Topic 28th: travel 0.034688 name 0.021247 toyota 0.014526 survei 0.009357 cost 0.008323 expens 0.008323 entertain 0.007289 gardner 0.006772 success 0.005738 car 0.005738 altern 0.005221 frequent 0.005221 perkin 0.005221 mead 0.004704 trip 0.004187 abus 0.004187 auto 0.003670 introduc 0.003670 stun 0.003153 mondai 0.003153 paper 0.003153 hir 0.003153 luxuri 0.003153 agent 0.002636 free 0.002636 tip 0.002636

extrem 0.002636 trademark 0.002636 check 0.002636 receipt 0.002636 spent 0.002636 extend 0.002120 compani 0.002120 poll 0.002120 fare 0.002120 division 0.002120 afternoon 0.002120 respond 0.002120 simpli 0.002120 requir 0.002120 flier 0.002120 presenc 0.001603 scandal 0.001603 logic 0.001603 firm 0.001603 legitim 0.001603 section 0.001603 amount 0.001603 mention 0.001603 sue 0.001603 Topic 29th: store 0.046860 food 0.025974 restaur 0.024289 shop 0.016541 servic 0.012498 retail 0.011488 depart 0.010814 chain 0.006434 yogurt 0.006434 division 0.006098

restaur 0.024289 shop 0.016541 servic 0.012498 retail 0.011488 depart 0.010814 chain 0.006434 yogurt 0.006434 division 0.006098 custom 0.006098 concept 0.004413 bar 0.004413 space 0.004076 eate 0.003739 fashion 0.003739 offer 0.003739 merchandis 0.003739 fast 0.003403 select 0.003403 manhattan 0.003403

dai 0.003066 outlet 0.003066 impress 0.003066 bullock 0.003066 francisco 0.003066 style 0.003066 cafe 0.003066 spend 0.002729 san 0.002729 square 0.002729 tradition 0.002729 director 0.002392 salad 0.002392 southern 0.002392 champagn 0.002392 serve 0.002392 mall 0.002392 supermarket 0.002392 unlik 0.002392 shopper 0.002392 lower 0.002392 design 0.002055 grill 0.002055 recent 0.002055 hudson 0.002055 particularli 0.002055 dayton 0.002055 Topic 30th: sign 0.014014 dog 0.012800 gu 0.006127 control 0.004307 gear 0.003094 leyva 0.002487 beverag 0.002487 robert 0.002487 cab 0.002487 allianc 0.002487 exclus 0.002487 repres 0.002487 pig 0.002487 dale 0.001881 diagnosi 0.001881 pound 0.001881 rubin 0.001881 armor 0.001881 jef 0.001881 asthma 0.001881

text 0.001881 ironi 0.001881 audienc 0.001881 host 0.001881 bel 0.001881 instruct 0.001881 truck 0.001881 select 0.001274 strongest 0.001274 ellen 0.001274 vow 0.001274 cause 0.001274 extrem 0.001274 ii 0.001274 boyd 0.001274 fold 0.001274 betti 0.001274 popul 0.001274 institut 0.001274 messag 0.001274 box 0.001274 tone 0.001274 vacat 0.001274 gone 0.001274 climb 0.001274 corner 0.001274 murphi 0.001274 hanson 0.001274 shelf 0.001274 zev 0.001274 Topic 31th: tree 0.022021 pine 0.019342 torrei 0.013984 beetle 0.008626 park 0.007019 speci 0.005947 mt 0.005411 carmel 0.004876 bark 0.004876 endang 0.004876 pest 0.004340 infest 0.004340 falcon 0.004340 weaken 0.003804 extinct 0.003804 spread 0.003804 flanagan 0.003268

insect 0.003268 drought 0.002733 acre 0.002733 drop 0.002733 continu 0.002733 shane 0.002197 farrell 0.002197 kill 0.002197 reserv 0.002197 nearli 0.002197 rest 0.002197 expert 0.002197 help 0.002197 approach 0.002197 exist 0.002197 favor 0.002197 typic 0.002197 winter 0.002197 found 0.001661 character 0.001661 cut 0.001661 dozen 0.001661 bald 0.001661 california 0.001661 dr 0.001661 ranger 0.001661 layer 0.001661 fish 0.001661 eg 0.001661 camp 0.001661 asid 0.001661 acquir 0.001661 brown 0.001125 Topic 32th: branch 0.006339 fellowship 0.005083 postal 0.003828 post 0.003201 daniel 0.003201 inform 0.002573 drop 0.002573 save 0.002573 alan 0.002573 pentecost 0.002573 gene 0.002573 pulse 0.001946 chapter 0.001946 try 0.001946

```
fifth 0.001946
      newli 0.001946
      discuss 0.001946
      loose 0.001946
      massiv 0.001946
      bodi 0.001946
      univers 0.001946
      iose 0.001946
      chamber 0.001946
      paid 0.001946
      gospel 0.001946
      girl 0.001318
      flate 0.001318
      short 0.001318
      flee 0.001318
      weaver 0.001318
      thank 0.001318
      main 0.001318
      aircraft 0.001318
      graduat 0.001318
      davi 0.001318
      satisfi 0.001318
      phenomena 0.001318
      layer 0.001318
      soli 0.001318
      unconsci 0.001318
      vindic 0.001318
      worth 0.001318
      kidnei 0.001318
      project 0.001318
      handle 0.001318
      rebuild 0.001318
      pioneer 0.001318
      rose 0.001318
      nationwid 0.001318
      vigor 0.001318
Topic 33th:
      sun 0.007824
      grace 0.006032
      evil 0.004838
      urban 0.003643
      satan 0.003643
      harada 0.003046
      emotion 0.003046
      god 0.003046
      mauric 0.002449
      priest 0.002449
      george 0.002449
```

fountain 0.002449 rate 0.002449 abandon 0.002449 horde 0.001851 punish 0.001851 search 0.001851 interior 0.001851 six 0.001851 applaud 0.001851 remot 0.001851 expect 0.001851 la 0.001851 gone 0.001851 triple 0.001851 love 0.001851 crime 0.001851 flesh 0.001851 forc 0.001851 see 0.001851 bend 0.001851 throughout 0.001851 beyond 0.001851 region 0.001851 wild 0.001851 explos 0.001254 jai 0.001254 likewis 0.001254 attribut 0.001254 quest 0.001254 floyd 0.001254 warren 0.001254 branch 0.001254 intention 0.001254 lug 0.001254 dark 0.001254 republ 0.001254 land 0.001254 forget 0.001254 august 0.001254 Topic 34th: school 0.076373 student 0.059068 district 0.034382 teacher 0.031582 board 0.021148 educ 0.013514 protest 0.011223 class 0.010460

colleg 0.009696 grade 0.008678 issue 0.007660 demonstr 0.006133 offici 0.005115 attend 0.004861 uci 0.004861 elementari 0.004861 labor 0.004861 san 0.004606 unifi 0.004606 parent 0.004606 children 0.004097 union 0.004097 junior 0.004097 buckei 0.003843 princip 0.003588 univers 0.003334 relat 0.003334 graduat 0.003079 pai 0.003079 hammond 0.002825 disput 0.002825 survei 0.002825 naacp 0.002825 dozen 0.002825 futur 0.002825 bargain 0.002570 program 0.002570 settlem 0.002570 learn 0.002570 teach 0.002570 total 0.002570 studi 0.002316 freshmen 0.002316 campu 0.002316 curriculum 0.002316 withhold 0.002316 peace 0.002316 senior 0.002316 core 0.002061 credenti 0.002061 Topic 35th: league 0.016472 basebal 0.015651 sport 0.014418 arm 0.011954 manag 0.009900

pitcher 0.008667 hit 0.008667 baltimor 0.007435 john 0.007435 stop 0.007024 tommi 0.007024 worri 0.006203 brown 0.005792 won 0.005792 club 0.005381 balk 0.005381 player 0.005381 york 0.005381 issue 0.004970 dr 0.004970 bob 0.004970 rule 0.004560 yankee 0.004149 padre 0.004149 compar 0.003738 agent 0.003738 attempt 0.003327 baseman 0.003327 dodger 0.003327 oriol 0.002917 umpir 0.002917 fan 0.002917 pitch 0.002917 histori 0.002917 gone 0.002917 press 0.002917 murrai 0.002917 outfield 0.002917 mcclure 0.002917 major 0.002917 oper 0.002506 discern 0.002506 illustr 0.002506 paid 0.002506 octob 0.002095 committe 0.002095 pack 0.002095 speak 0.002095 rose 0.002095 charle 0.002095 Topic 36th: angel 0.173097 lo 0.157337

graphic 0.038262

photo 0.027755

writer 0.010536

time 0.006742

landmark 0.004407

wild 0.003823

main 0.003531

downtown 0.003240

hundr 0.002948

commun 0.002948

return 0.002656

move 0.002656

call 0.002656

rais 0.002656

reach 0.002364

metro 0.002364

counti 0.002072

edward 0.002072

duti 0.001780

refus 0.001780

harri 0.001780

drop 0.001780

drew 0.001780

articl 0.001488

arriv 0.001488

boulevard 0.001488

obvious 0.001488

telephon 0.001488

relief 0.001488

examin 0.001488

donat 0.001488

connect 0.001488

nui 0.001488

martin 0.001488

grew 0.001488

inglewood 0.001197

sherman 0.001197

amount 0.001197

view 0.001197

mention 0.001197

quit 0.001197

vallei 0.001197

estim 0.001197

minut 0.001197

tonight 0.001197

edition 0.001197

countri 0.001197

freewai 0.001197

## Topic 37th: ibm 0.022414 comput 0.020938 research 0.012819 system 0.011834 industri 0.011096 product 0.009866 develop 0.009866 compani 0.009374 ordin 0.008636 technologi 0.008636 equip 0.006668 govern 0.006668 agenc 0.006422 requir 0.006422 electron 0.006176 unit 0.005930 offic 0.005930 restaur 0.005930 smok 0.005683 process 0.005683 busi 0.005437 market 0.005437 nonsmok 0.005191 optic 0.004945 air 0.004699 cost 0.004699 smoke 0.004453 fiber 0.004207 make 0.004207 defens 0.004207 monsanto 0.003961 manufactur 0.003961 materi 0.003961 expens 0.003961 complaint 0.003715 structur 0.003715 japanes 0.003715 chemic 0.003715 scientif 0.003715 contract 0.003715 facil 0.003715 telephon 0.003469 machin 0.003469 chip 0.003469 award 0.003223 corp 0.003223 competitor 0.003223

superconduct 0.003223 firm 0.003223 ag 0.002977 Topic 38th: force 0.018409 air 0.015784 hughe 0.012831 pilot 0.012831 robertson 0.011190 mile 0.010862 vietnam 0.009877 missil 0.009221 american 0.008893 militari 0.008237 war 0.007580 miss 0.007252 kill 0.007252 plane 0.006596 mig 0.006268 jet 0.005939 aliv 0.005611 libyan 0.005611 aircraft 0.005611 rother 0.005283 gm 0.005283 north 0.005283 electron 0.004627 fighter 0.004627 navi 0.004627 bylin 0.004299 base 0.004299 atwood 0.004299 maneuv 0.003971 husband 0.003971 train 0.003971 wednesdai 0.003971 fox 0.003971 veteran 0.003642 radar 0.003642 action 0.003642 mediterranean 0.003642 associ 0.003642 ail 0.003314 arm 0.003314 rockwell 0.003314 weapon 0.003314 fire 0.003314 equip 0.003314

sea 0.003314 children 0.002986 shoot 0.002986 carrier 0.002986 bomber 0.002986 cancel 0.002986

## Topic 39th:

fish 0.029864 bait 0.012695 boate 0.011792 trout 0.011340

coast 0.009081

express 0.007726

fishermen 0.007726

caught 0.007274

power 0.006822

tuna 0.005918

lake 0.005467

schedul 0.005467

catch 0.005015

near 0.005015

christma 0.004563

john 0.004563

dai 0.004563

pound 0.004563

harbor 0.004563

oper 0.004111

mile 0.004111

pacif 0.004111

channel 0.004111

hall 0.004111

aboard 0.003660

andrew 0.003660

california 0.003660

catalina 0.003660

sea 0.003208

offici 0.002756

result 0.002756

water 0.002756

product 0.002756

ocean 0.002756

enterpris 0.002756

island 0.002756

ferri 0.002304

greg 0.002304

sport 0.002304

wednesdai 0.002304

attract 0.002304

devic 0.002304 son 0.002304 chemic 0.001852 fad 0.001852 sometim 0.001852 ame 0.001852 southeast 0.001852 fisherman 0.001852 base 0.001852 Topic 40th: black 0.060476 white 0.044661 minor 0.022240 racial 0.011030 cultur 0.010430 southern 0.007827 american 0.007827 social 0.007627 south 0.007026 univers 0.006626 nation 0.006226 relat 0.006026 discrimin 0.005625 busi 0.005225 race 0.005025 style 0.005025 societi 0.004424 atlanta 0.004424 test 0.004424 self 0.004224 colleg 0.003824 commun 0.003824 job 0.003623 school 0.003623 exampl 0.003423 latino 0.003423 color 0.003223 segreg 0.003223 compar 0.003223 mississippi 0.003223 tend 0.003023 human 0.003023 inner 0.003023 world 0.003023 asian 0.003023 standard 0.002823 klan 0.002823 gener 0.002823

```
racism 0.002823
      attitud 0.002823
      studi 0.002622
      dai 0.002622
      separ 0.002622
      women 0.002622
      view 0.002622
      beyond 0.002622
      town 0.002622
      paul 0.002422
      popul 0.002422
      public 0.002422
Topic 41th:
      usc 0.027853
      ucla 0.023507
      arizona 0.019162
      trojan 0.018728
      washington 0.018293
      bruin 0.013948
      pac 0.009168
      elliot 0.007865
      ravel 0.007865
      call 0.006127
      huski 0.005692
      richardson 0.005692
      anthoni 0.005258
      harrick 0.004823
      munk 0.004823
      oregon 0.004389
      guard 0.004389
      pendleton 0.004389
      forward 0.003954
      shot 0.003954
      note 0.003520
      staf 0.003520
      jerri 0.003520
      probabl 0.003520
      execut 0.003085
      pollard 0.003085
      cook 0.003085
      sun 0.003085
      sorri 0.003085
      george 0.003085
      catch 0.002651
      ore 0.002651
      frustrat 0.002651
      screen 0.002651
      sport 0.002216
```

fan 0.002216 grande 0.002216 sit 0.002216 moore 0.002216 eldridg 0.002216 rig 0.002216 stanford 0.002216 devil 0.002216 block 0.002216 recasn 0.002216 pavilion 0.002216 american 0.001782 patterson 0.001782 pooh 0.001782 dr 0.001782 Topic 42th: haye 0.014623 dornan 0.008307 cox 0.007822 vote 0.007822 confirm 0.007822 republican 0.005878 robert 0.005878 democr 0.005878 rep 0.005393 rohrabach 0.004907 congressmen 0.004421 treasur 0.004421 parent 0.004421 choice 0.003935 thoma 0.003935 polit 0.003935 kept 0.003935 sworn 0.003935 offic 0.003935 nomin 0.003935 moore 0.003935 replac 0.003449 vot 0.003449 integr 0.003449 legislatur 0.003449 paper 0.003449 charm 0.002963 sen 0.002963 assembli 0.002963 wright 0.002478 partisan 0.002478 house 0.002478

jim 0.002478 set 0.002478 victori 0.002478 lungren 0.002478 speaker 0.002478 ti 0.002478 red 0.002478 gov 0.002478 roo 0.001992 anniversari 0.001992 christoph 0.001992 william 0.001992 return 0.001992 financi 0.001992 experi 0.001992 seate 0.001992 sting 0.001992 badham 0.001992 Topic 43th: jefferi 0.019438 gaf 0.010355 sherwin 0.008538 carbid 0.005510 implic 0.005510 manipul 0.004299 union 0.003694 identifi 0.003694 obviou 0.003694 block 0.003088 park 0.003088 request 0.002483 brokerag 0.002483 recall 0.002483 donat 0.002483 junk 0.001877 invoic 0.001877 settl 0.001877 liman 0.001877 discov 0.001877 will 0.001877 boyd 0.001877 brought 0.001877 combin 0.001877 britain 0.001877 fail 0.001877 due 0.001877 assum 0.001877 held 0.001877

person 0.001877 voic 0.001877 specif 0.001877 ex 0.001877 bid 0.001272 approxim 0.001272 labor 0.001272 banker 0.001272 mari 0.001272 sack 0.001272 resign 0.001272 sensit 0.001272 precis 0.001272 chemic 0.001272 intention 0.001272 johnson 0.001272 increas 0.001272 uncomfort 0.001272 fit 0.001272 leg 0.001272 watson 0.001272 Topic 44th: king 0.041603 name 0.021205 jr 0.020051 martin 0.020051 center 0.013508 convent 0.012739 luther 0.011969 helen 0.009660 fugard 0.009275 dr 0.006966 port 0.006581 richmond 0.006581 honor 0.006196 civil 0.005426 right 0.005426 committe 0.004657 mecca 0.004272 nam 0.004272 road 0.003887 south 0.003887 benson 0.003887 elvi 0.003502 mondai 0.003502 town 0.003502 act 0.003502 featur 0.003502

change 0.003117 make 0.003117 tennesse 0.003117 preslei 0.003117 renam 0.002732 left 0.002732 opinion 0.002732 birthdai 0.002348 route 0.002348 leader 0.002348 dream 0.002348 unabl 0.002348 fail 0.002348 mariu 0.002348 hero 0.002348 celebr 0.002348 women 0.002348 anywai 0.002348 flower 0.002348 unconqu 0.001963 sr 0.001963 garden 0.001963 pastor 0.001963 nan 0.001963 Topic 45th: green 0.037000 leonard 0.011496 ken 0.008538 box 0.007799 nun 0.007060 hearn 0.006690 golf 0.006321 azing 0.005581 re 0.005212 golfer 0.004842 million 0.004842 pai 0.004842 world 0.004842 palmer 0.004473 player 0.004473 european 0.004473 lot 0.004103 enjoi 0.004103 middleweight 0.004103 ball 0.003733 club 0.003733 thoma 0.003733 major 0.003364

finish 0.003364 jack 0.003364 dollar 0.003364 wednesdai 0.002994 rai 0.002994 imagin 0.002994 frank 0.002994 bout 0.002624 announc 0.002624 crock 0.002624 confid 0.002624 lane 0.002624 statist 0.002624 car 0.002624 color 0.002624 speak 0.002624 failur 0.002255 rank 0.002255 arnold 0.002255 american 0.002255 champion 0.002255 mind 0.002255 combin 0.002255 eagle 0.002255 blue 0.002255 magnolia 0.002255 Topic 46th: counti 0.103697 orang 0.063855 job 0.024655 irvin 0.011589 worker 0.010732 offic 0.010089 banfill 0.009661 santa 0.009661 employ 0.009232 ana 0.008590 pai 0.008161 month 0.007947 home 0.007947 hour 0.007947 local 0.007519 employe 0.007090 depart 0.006662 resid 0.006448 servic 0.006448

park 0.006233

lucki 0.003364

california 0.006019 labor 0.005377 increas 0.005377 lot 0.004734 clos 0.004520 hous 0.004520 benefit 0.004520 liv 0.004306 famili 0.004306 low 0.004306 plant 0.004091 compani 0.004091 supervisor 0.003877 xidex 0.003877 lower 0.003877 agenc 0.003877 week 0.003663 table 0.003663 fill 0.003663 unemploi 0.003449 applic 0.003449 provid 0.003449 unemploy 0.003449 decemb 0.003235 thoma 0.003235 rate 0.003020 assist 0.003020 western 0.003020 earn 0.003020 personnel 0.002806 Topic 47th: fog 0.009685 david 0.007279 peter 0.005474 explor 0.005474 london 0.005474 travel 0.004271 mill 0.003669 shoot 0.003068 tod 0.003068 fox 0.003068 fix 0.002466 british 0.002466 sent 0.002466 jule 0.001865 reno 0.001865 remak 0.001865 wednesdai 0.001865

world 0.001865 ethic 0.001865 learn 0.001865 interview 0.001865 third 0.001865 civil 0.001865 suppos 0.001865 statem 0.001865 appear 0.001865 manner 0.001865 confront 0.001865 moral 0.001865 motion 0.001865 extend 0.001263 idle 0.001263 norfolk 0.001263 luckili 0.001263 pierce 0.001263 credit 0.001263 breast 0.001263 spoke 0.001263 launch 0.001263 smear 0.001263 express 0.001263 facet 0.001263 accompani 0.001263 marinaro 0.001263 mutual 0.001263 cause 0.001263 niven 0.001263 taste 0.001263 frank 0.001263 ullman 0.001263 Topic 48th: race 0.018223 cup 0.012016 win 0.011129 won 0.009799 horse 0.008469 rac 0.006695 course 0.006695 finish 0.006252 jockei 0.006252 anita 0.005365 run 0.005365 goodbye 0.005365 halo 0.005365 victori 0.004922

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gum 0.004922
      filli 0.004478
      career 0.004478
      derbi 0.004478
      broke 0.004035
      dai 0.004035
      third 0.004035
      gloriou 0.004035
      santa 0.004035
      trainer 0.004035
      futur 0.003591
      rid 0.003591
      person 0.003591
      paid 0.003148
      world 0.003148
      marco 0.003148
      breeder 0.002705
      ensign 0.002705
      fifth 0.002705
      start 0.002705
      switzerland 0.002705
      jack 0.002705
      nam 0.002705
      kentucki 0.002705
      grass 0.002705
      downhill 0.002261
      subtle 0.002261
      schneider 0.002261
      stretch 0.002261
      hollywood 0.002261
      color 0.002261
      record 0.002261
      stake 0.002261
      winner 0.002261
      owner 0.002261
      post 0.002261
Topic 49th:
      offer 0.009207
      saturdai 0.007957
      review 0.007957
      even 0.007124
      opera 0.006291
      afternoon 0.006291
      style 0.005874
      widow 0.005457
      sang 0.005457
      prov 0.005041
      cast 0.004208
```

critic 0.003791 matine 0.003791 compani 0.003791 act 0.003791 mark 0.003374 clever 0.003374 bright 0.003374 appeal 0.003374 occasion 0.003374 audienc 0.003374 perform 0.002958 reviv 0.002958 bill 0.002541 none 0.002541 sonia 0.002541 ton 0.002541 pain 0.002541 centuri 0.002541 height 0.002541 week 0.002541 lehar 0.002541 virtual 0.002541 pressur 0.002541 vocal 0.002125 merri 0.002125 mcbride 0.002125 game 0.002125 rel 0.002125 warm 0.002125 natali 0.002125 despit 0.002125 tenor 0.002125 weekend 0.002125 particularli 0.002125 nor 0.002125 opposit 0.002125 meantim 0.002125 oddli 0.002125 domin 0.002125 Topic 50th: music 0.039946 band 0.017792 record 0.017792 song 0.017561 publish 0.010869 plai 0.010408 rock 0.009254 jazz 0.009023

blue 0.009023 perform 0.008792 countri 0.007869 fleetwood 0.007869 concert 0.007869 singer 0.007638 album 0.007177 symphoni 0.006946 includ 0.006023 sound 0.006023 pop 0.005792 musician 0.005792 tour 0.005331 tree 0.005100 jan 0.004869 browne 0.004638 classic 0.004408 recent 0.004177 barden 0.003946 orchestra 0.003946 local 0.003946 cb 0.003946 quartet 0.003715 copyright 0.003715 ago 0.003715 opera 0.003715 entertain 0.003485 celebr 0.003485 sing 0.003485 set 0.003254 harri 0.003254 guitarist 0.003023 catalogu 0.003023 mac 0.002792 program 0.002792 piece 0.002792 la 0.002792 club 0.002561 holman 0.002561 tune 0.002561 radio 0.002561 drummer 0.002561 Topic 51th: lynch 0.023616 john 0.014660 brother 0.014660 santa 0.013717 joseph 0.013246

prostitut 0.010889 help 0.009946 ana 0.009003 mari 0.007118 brian 0.006647 live 0.005704 famili 0.005704 ioe 0.004761 wife 0.004761 helen 0.004761 wheel 0.004290 rose 0.003818 continu 0.003818 murder 0.003818 appoint 0.003818 merv 0.003818 rolf 0.003347 host 0.003347 aim 0.003347 sister 0.003347 depress 0.003347 victim 0.003347 kill 0.002875 tuesdai 0.002875 ago 0.002875 arraign 0.002875 vanna 0.002404 psychiatrist 0.002404 rel 0.002404 daughter 0.002404 grace 0.002404 blow 0.001933 feb 0.001933 manic 0.001933 treate 0.001933 twice 0.001933 charact 0.001933 injunct 0.001933 deborah 0.001933 kept 0.001933 retir 0.001933 twin 0.001933 tragedi 0.001461 guest 0.001461 ralph 0.001461 Topic 52th: newport 0.033972 beach 0.033434

harbor 0.008130

tuesdai 0.007053

ward 0.006514

cycle 0.005976

david 0.005438

marijuana 0.004361

surf 0.004361

half 0.003284

boate 0.003284

mallei 0.003284

sea 0.003284

seizur 0.003284

courtnei 0.002746

headlin 0.002746

slip 0.002746

leash 0.002207

dolphin 0.002207

mesa 0.002207

convict 0.002207

ex 0.002207

install 0.002207

anaheim 0.002207

london 0.002207

surround 0.002207

noise 0.002207

mild 0.001669

oaklei 0.001669

colleagu 0.001669

borri 0.001669

minut 0.001669

tom 0.001669

limit 0.001669

fridai 0.001669

car 0.001669

source 0.001669

commun 0.001669

estim 0.001669

stanlei 0.001669

sundai 0.001669

emphas 0.001131

carter 0.001131

lower 0.001131

burn 0.001131

wheney 0.001131

pamela 0.001131

stung 0.001131

advisori 0.001131

unclear 0.001131

## Topic 53th: editor 0.024428 journal 0.020472 byrd 0.017505 stori 0.012560 report 0.011571 review 0.010253 journalist 0.008275 time 0.007945 monthli 0.007945 radic 0.007615 crosbi 0.007615 origin 0.007615 newspap 0.006956 publish 0.006956 mcguin 0.006626 hillman 0.005967 press 0.005637 name 0.005637 media 0.005308 wrote 0.005308 thoma 0.004978 standard 0.004648 new 0.004648 articl 0.004648 claim 0.004319 clark 0.004319 clarke 0.003989 public 0.003659 view 0.003659 legal 0.003659 conserv 0.003659 establish 0.003330 reader 0.003330 edit 0.003330 polit 0.003330 reunion 0.003330 controversi 0.003000 page 0.003000 popular 0.003000 street 0.002670 liber 0.002670 respect 0.002670 stone 0.002670 taylor 0.002670 accuraci 0.002670 socialist 0.002670 ideolog 0.002670

uc 0.002670 wall 0.002341 paper 0.002341 Topic 54th: texaco 0.019543 chart 0.009534 sharehold 0.006901 pension 0.006901 icahn 0.006901 week 0.006374 table 0.005847 carl 0.005847 cooper 0.005847 retir 0.005320 bakker 0.005320 univers 0.005320 rental 0.004794 top 0.004267 trust 0.004267 bankruptci 0.004267 denni 0.003740 close 0.003740 kinnear 0.003740 poison 0.003213 rank 0.003213 pull 0.003213 pill 0.003213 intent 0.003213 davi 0.002686 hunt 0.002686 employe 0.002686 proxi 0.002686 asset 0.002686 fight 0.002160 hanson 0.002160 wilson 0.002160 cwl 0.002160 jr 0.002160 ban 0.001633 expir 0.001633 devis 0.001633 rca 0.001633 april 0.001633 defens 0.001633 intellig 0.001633 system 0.001633 plan 0.001633 design 0.001633

ken 0.001633 columbia 0.001633 nearli 0.001633 newspap 0.001633 press 0.001633 break 0.001633 Topic 55th: robinson 0.031724 brown 0.014759 baruch 0.006842 clif 0.006277 intens 0.004580 atmospher 0.004015 hir 0.003449 cinnamon 0.003449 brother 0.003449 begin 0.003449 villanova 0.003449 past 0.002884 grei 0.002884 barber 0.002318 calhoun 0.002318 chicago 0.002318 resum 0.002318 object 0.002318 noah 0.002318 jesse 0.002318 host 0.002318 fre 0.002318 offens 0.002318 leroi 0.001753 circuit 0.001753 dedic 0.001753 deliv 0.001753 boyfriend 0.001753 intent 0.001753 barge 0.001753 cit 0.001753 connecticut 0.001753 chang 0.001188 frustrat 0.001188 coward 0.001188 stint 0.001188 rip 0.001188 content 0.001188 suppli 0.001188 accessori 0.001188 sanitari 0.001188

slai 0.001188 ocean 0.001188 evan 0.001188 texa 0.001188 answer 0.001188 flash 0.001188 wheel 0.001188 jealou 0.001188 imaginari 0.001188 Topic 56th: right 0.015189 civil 0.014025 web 0.007041 handicap 0.006459 depart 0.006459 suit 0.005878 durham 0.005878 texa 0.005296 downei 0.004132 bu 0.004132 refus 0.004132 fil 0.004132 complaint 0.003550 donald 0.003550 oppenheim 0.003550 transport 0.003550 trump 0.002968 buse 0.002968 servic 0.002968 door 0.002968 free 0.002968 regular 0.002968 casino 0.002386 staf 0.002386 caesar 0.002386 notifi 0.002386 illinoi 0.002386 popular 0.001804 hotel 0.001804 oblig 0.001804 atlant 0.001804 couldn 0.001804 educ 0.001804 disabl 0.001804 briefli 0.001804 sheinbaum 0.001804 del 0.001804 sever 0.001222

hawlei 0.001222 answer 0.001222 taught 0.001222 girl 0.001222 wooden 0.001222 design 0.001222 throughout 0.001222 cancel 0.001222 choice 0.001222 prai 0.001222 complet 0.001222 hero 0.001222 Topic 57th: juror 0.018024 steel 0.016391 import 0.007678 drake 0.007134 prospect 0.006589 believ 0.006044 juri 0.004955 ian 0.004955 curb 0.004955 altern 0.004411 fridai 0.004411 quota 0.003866 ramirez 0.003866 remark 0.003866 select 0.003322 woman 0.003322 anglo 0.003322 kirkland 0.003322 heard 0.002777 saudi 0.002777 subject 0.002777 home 0.002777 tynan 0.002777 oath 0.002777 thursdai 0.002777 trade 0.002233 di 0.002233 entir 0.002233 halpin 0.002233 afternoon 0.002233 stalker 0.001688 lobbi 0.001688 token 0.001688 text 0.001688 opinion 0.001688

morn 0.001688 profit 0.001688 plane 0.001688 current 0.001688 matter 0.001688 excus 0.001688 near 0.001688 english 0.001688 experi 0.001688 read 0.001688 bangkok 0.001688 assum 0.001688 vision 0.001144 spoke 0.001144 refuge 0.001144 Topic 58th: floate 0.017402 de 0.016945 van 0.015118 parad 0.012378 kamp 0.011008 davi 0.010094 democr 0.008724 mechan 0.006897 governor 0.006440 grossman 0.006440 polit 0.005070 feinstein 0.004156 democrat 0.004156 mccarthi 0.004156 elect 0.003700 emerg 0.003700 rose 0.003700 primari 0.003700 leader 0.003243 advis 0.003243 deadlin 0.003243 pete 0.002786 grai 0.002786 john 0.002786 tournam 0.002786 engin 0.002786 builder 0.002786 ambition 0.002786 lineup 0.002786 candid 0.002786 brown 0.002786 southern 0.002329

leo 0.002329 senat 0.002329 speak 0.002329 wilson 0.002329 independ 0.002329 author 0.002329 previous 0.002329 fuel 0.002329 republican 0.002329 poll 0.001873 sponsor 0.001873 tow 0.001873 theme 0.001873 mix 0.001873 gop 0.001873 collaps 0.001873 barbara 0.001873 contend 0.001873 Topic 59th: book 0.012976 wayne 0.008667 creativ 0.008188 louisiana 0.007709 wilbert 0.007230 award 0.006752 marriag 0.005315 ryan 0.005315 unit 0.004357 marri 0.004357 bank 0.004357 solitud 0.004357 pardon 0.004357 single 0.003879 fear 0.003879 freedom 0.003879 movi 0.003400 movie 0.003400 complet 0.003400 stor 0.003400

roger 0.003400 relationship 0.003400 writ 0.003400 resign 0.003400 muir 0.003400 governor 0.003400 charle 0.002921 susan 0.002921 happen 0.002921

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possibl 0.002921
      willie 0.002921
      lake 0.002442
      averag 0.002442
      secur 0.002442
      winner 0.002442
      estat 0.002442
      ferguson 0.001963
      angola 0.001963
      rehabilit 0.001963
      kern 0.001963
      inmat 0.001963
      fulfill 0.001963
      phelp 0.001963
      come 0.001963
      octob 0.001963
      activ 0.001963
      construct 0.001963
      gain 0.001963
      gamble 0.001963
      interact 0.001963
Topic 60th:
      athlet 0.032835
      colleg 0.022960
      thompson 0.013085
      propos 0.011674
      educ 0.011321
      academ 0.010616
      ncaa 0.010616
      rule 0.008500
      test 0.008147
      division 0.008147
      john 0.007794
      meet 0.006736
      standard 0.006736
      proposit 0.006736
      qualifi 0.006384
      sport 0.005678
      scholarship 0.005326
      requir 0.005326
      level 0.004973
      ravel 0.004973
      total 0.004973
      slaughter 0.004973
      win 0.004620
      occident 0.004620
      elig 0.004620
      collegi 0.004620
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school 0.004267 student 0.004267 associ 0.004267 iii 0.004267 doctor 0.004267 minimum 0.003915 black 0.003915 survei 0.003915 pass 0.003562 coach 0.003209 partial 0.003209 youngster 0.003209 support 0.003209 vote 0.003209 entranc 0.002857 societi 0.002857 particip 0.002857 regul 0.002857 sai 0.002857 brown 0.002857 kid 0.002857 low 0.002504 score 0.002504 sate 0.002504 Topic 61th: govern 0.018600 israel 0.012924 peace 0.010345 south 0.009571 arab 0.009313 crouch 0.009055 foreign 0.008281 armi 0.008281 minist 0.007765 palestinian 0.007249 unit 0.006991 world 0.006991 salvador 0.006991 countri 0.006991 militari 0.006733 el 0.006733 datelin 0.006475 africa 0.006217 central 0.005701 talk 0.004927 extradit 0.004927 polici 0.004411 reject 0.004411

propos 0.004411 israe 0.004411 leader 0.004411 soldier 0.004411 guerrilla 0.004153 shamir 0.004153 greece 0.003895 christian 0.003895 liber 0.003895 elect 0.003637 plan 0.003637 african 0.003637 tbn 0.003379 east 0.003379 offici 0.003379 ministri 0.003379 organ 0.003379 apartheid 0.003379 terror 0.003379 terrorist 0.003379 respons 0.003121 dec 0.003121 war 0.003121 rebel 0.003121 homeland 0.003121 link 0.003121 vatican 0.003121 Topic 62th: coach 0.029324 head 0.015744 charger 0.014471 defens 0.011925 ortmay 0.011076 job 0.010227 assist 0.008954 coordin 0.008106 lyn 0.007681 fir 0.007257 owner 0.006832 spano 0.006408 chief 0.006408 schottenheim 0.006408 raider 0.006408 nfl 0.005135 adolph 0.004286 football 0.004286 brown 0.004286 hir 0.004286

dave 0.004286 clark 0.003862 dog 0.003862 ram 0.003862 walsh 0.003862 cleveland 0.003862 kansa 0.003862 team 0.003437 jan 0.003437 reportedli 0.003437 steve 0.003437 gene 0.003437 coache 0.003013 seifert 0.003013 schedul 0.003013 report 0.003013 white 0.003013 hen 0.002589 tuesdai 0.002589 alex 0.002589 mike 0.002589 mov 0.002589 discuss 0.002164 top 0.002164 al 0.002164 marti 0.002164 bowman 0.002164 dick 0.002164 experi 0.002164 suggest 0.002164 Topic 63th: yard 0.026486 bengal 0.022271 football 0.018731 bowl 0.017551 game 0.017551 plai 0.014179 cincinnati 0.013842 pass 0.013504 field 0.012493 team 0.012493 montana 0.011987 super 0.011650 bear 0.011481 francisco 0.011313 san 0.009964 rice 0.009121 defens 0.008447

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touchdown 0.008278
      left 0.007941
      offens 0.007604
      bill 0.007435
      sundai 0.007098
      run 0.006929
      coach 0.006929
      guarter 0.006592
      pro 0.006592
      goal 0.006255
      ball 0.006086
      nfl 0.005749
      player 0.005412
      chicago 0.005243
      wyche 0.005075
      joe 0.004906
      drive 0.004737
      line 0.004737
      walsh 0.004232
      quarterback 0.004063
      win 0.003726
      mike 0.003726
      half 0.003726
      tackle 0.003726
      championship 0.003557
      nfc 0.003389
      esiason 0.003389
      hit 0.003220
      craig 0.003220
      receiv 0.003220
      buffalo 0.003052
      jim 0.003052
      score 0.002883
Topic 64th:
      season 0.038682
      team 0.036865
      game 0.029729
      player 0.028042
      coach 0.026095
      plai 0.019088
      basketbal 0.014936
      school 0.014546
      football 0.014417
      colleg 0.011173
      averag 0.009356
      nation 0.007539
      league 0.007539
      record 0.006761
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freshman 0.005982
      confer 0.005333
      north 0.005074
      lost 0.004944
      win 0.004814
      sport 0.004684
      dame 0.004555
      notre 0.004555
      senior 0.004425
      east 0.004425
      coache 0.004425
      smith 0.004295
      injuri 0.004295
      carolina 0.004165
      top 0.004165
      division 0.004165
      assist 0.004036
      rank 0.004036
      reid 0.003906
      athlet 0.003776
      hall 0.003776
      gui 0.003776
      guard 0.003646
      start 0.003646
      kid 0.003646
      brown 0.003646
      georgetown 0.003646
      career 0.003517
      program 0.003517
      mourn 0.003387
      week 0.003387
      thompson 0.003257
      univers 0.003257
      pound 0.003257
      championship 0.003127
      norman 0.003127
Topic 65th:
      citi 0.079763
      council 0.024482
      dana 0.016075
      resid 0.015311
      commun 0.014546
      plan 0.013782
      laguna 0.011999
      hill 0.011489
      counti 0.009706
      hotel 0.007159
      manag 0.007159
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niguel 0.006649 incorpor 0.006649 ca 0.006394 traffic 0.006140 mayor 0.005885 propos 0.005885 vote 0.005630 beach 0.005630 cityhood 0.005375 annex 0.005375 local 0.005375 lafco 0.005375 district 0.005120 hear 0.004866 park 0.004611 wednesdai 0.004611 commission 0.004611 mile 0.004356 harbor 0.004101 south 0.004101 capistrano 0.003592 mission 0.003592 busi 0.003592 concern 0.003337 town 0.003337 coast 0.003337 juan 0.003337 viejo 0.003337 five 0.003337 board 0.003337 nearli 0.003082 vot 0.003082 street 0.003082 revenu 0.002828 growth 0.002828 live 0.002828 citizen 0.002828 neighbor 0.002573 strip 0.002573 Topic 66th: stock 0.033965 price 0.026655 market 0.025611 rate 0.013863 rose 0.011774 bond 0.011774 dollar 0.010991 trad 0.010208

share 0.010208 industri 0.010208 fell 0.009164 month 0.008119 datelin 0.007336 haa 0.007075 york 0.006553 yield 0.006553 dealer 0.006553 treasuri 0.006292 decemb 0.006031 cent 0.005770 reserv 0.005770 govern 0.005770 novemb 0.005509 oil 0.005509 late 0.004986 gain 0.004986 tuesdai 0.004986 analyst 0.004725 clos 0.004725 feder 0.004725 economi 0.004725 inflat 0.004725 trade 0.004725 primari 0.004203 figur 0.004203 drop 0.003942 declin 0.003942 volum 0.003942 rothschild 0.003942 investor 0.003681 prefer 0.003681 discount 0.003681 averag 0.003681 exchang 0.003681 value 0.003420 term 0.003420 report 0.003420 increas 0.003420 demand 0.003420 fed 0.003159 Topic 67th: goal 0.040714 game 0.021207 king 0.020997 period 0.018480 plai 0.016802

team 0.014075 scor 0.012816 gretzki 0.011767 island 0.010299 carpent 0.009041 assist 0.008411 night 0.007992 hockei 0.007992 lemieux 0.007782 player 0.007572 season 0.006943 nhl 0.006943 left 0.006733 third 0.006523 wing 0.006523 capit 0.006314 lead 0.006104 power 0.006104 fitzpatrick 0.005265 red 0.005265 tie 0.005055 net 0.005055 tonelli 0.004845 wayne 0.004636 puck 0.004426 defens 0.004426 division 0.004216 hartford 0.004216 whaler 0.004216 shot 0.004216 league 0.003797 canada 0.003377 bobbi 0.003377 ranger 0.003377 boston 0.003167 edmonton 0.003167 mario 0.003167 soviet 0.003167 win 0.002958 york 0.002958 bylin 0.002748 past 0.002748 center 0.002748 bruin 0.002748 ftorek 0.002748 Topic 68th: televis 0.045069

tv 0.033807

program 0.019080 seri 0.013449

broadcast 0.012366

report 0.011717

station 0.011067

new 0.010850

channel 0.010634

media 0.009334

network 0.009118

produc 0.009118

nbc 0.008251

michael 0.007602

execut 0.007385

america 0.007169

insid 0.006302

commerci 0.006086

hollywood 0.005869

video 0.005653

pictur 0.005653

stori 0.005436

entertain 0.005436

magazin 0.005436

advertis 0.005219

radio 0.005003

industri 0.004786

american 0.004570

star 0.004570

presid 0.004353

nation 0.004353

morn 0.003920

award 0.003920

rock 0.003920

featur 0.003703

power 0.003703

edition 0.003487

abc 0.003487

studio 0.003487

screen 0.003487

special 0.003487

air 0.003270

hour 0.003270

nixon 0.003270

cable 0.003054

kcet 0.003054

cb 0.003054

write 0.003054

camera 0.003054

audienc 0.002837

## Topic 69th: rose 0.024296 bowl 0.024296 duke 0.019553 ten 0.011648 monte 0.008485 wayne 0.005850 memori 0.004796 del 0.004796 orang 0.004269 commission 0.004269 eight 0.003742 kkr 0.003742 line 0.003742 helix 0.003742 rjr 0.003742 highlight 0.003215 brand 0.003215 nabisco 0.002688 confer 0.002688 disappoint 0.002688 planter 0.002161 elbow 0.002161 orient 0.002161 stanford 0.002161 skip 0.002161 martha 0.002161 nut 0.002161 offici 0.002161 compet 0.002161 ketchup 0.002161 ye 0.002161 food 0.002161 pac 0.002161 celebr 0.002161 retir 0.002161 match 0.002161 illustr 0.001634 fruit 0.001634 let 0.001634 stern 0.001634 beatric 0.001634 sear 0.001634 chun 0.001634 packag 0.001634 jame 0.001634 lost 0.001634 hall 0.001634

perman 0.001634 specul 0.001634 length 0.001634 Topic 70th: sale 0.013514 truck 0.011360 car 0.008668 motor 0.007591 model 0.007053 ford 0.006514 custom 0.005976 domest 0.005976 import 0.005976 arriv 0.004899 pickup 0.004899 electr 0.004899 auto 0.004361 sterl 0.004361 border 0.003823 chrysler 0.003823 miller 0.003823 detroit 0.003284 table 0.003284 poison 0.003284 monoxid 0.003284 mexican 0.003284 carbon 0.003284 respect 0.002746 camper 0.002746 expand 0.002746 increas 0.002746 shell 0.002207 disappear 0.002207 set 0.002207 discuss 0.002207 calif 0.002207 pull 0.002207 juli 0.002207 plant 0.002207 formal 0.002207 father 0.002207 ortega 0.002207 fume 0.001669 seep 0.001669 ladi 0.001669 escort 0.001669 dense 0.001669 support 0.001669

account 0.001669 bill 0.001669 financ 0.001669 grow 0.001669 briefli 0.001669 lock 0.001669 Topic 71th: gun 0.024378 weapon 0.021630 assault 0.013779 california 0.012994 law 0.012209 type 0.012209 semiautomat 0.008283 owner 0.007498 bill 0.007498 enforc 0.007498 rifle 0.007498 militari 0.007105 control 0.007105 handgun 0.006713 legisl 0.006320 purchas 0.006320 ban 0.005928 sale 0.005535 popular 0.005142 firearm 0.005142 ak 0.004750 check 0.003965 crimin 0.003965 holden 0.003572 street 0.003572 prohibit 0.003572 background 0.003572 wait 0.003180 sen 0.003180 booth 0.003180 restrict 0.003180 aim 0.003180 sold 0.003180 drug 0.003180 sell 0.003180 carri 0.002787 polic 0.002787 outlaw 0.002787 plan 0.002787 stockton 0.002787 favor 0.002787

exempt 0.002787 david 0.002787 gang 0.002787 illeg 0.002395 manufactur 0.002395 bui 0.002395 legislatur 0.002395 machin 0.002395 coalition 0.002395 Topic 72th: build 0.025631 site 0.020862 center 0.018602 develop 0.017347 land 0.016343 million 0.013330 construct 0.012828 offic 0.012326 space 0.011573 plan 0.010820 project 0.009816 park 0.009565 square 0.008812 univers 0.008309 research 0.007807 acre 0.006301 facil 0.006050 environment 0.005799 rent 0.005799 world 0.005799 costa 0.005799 natur 0.005548 conserv 0.005297 forest 0.005297 begin 0.005046 mov 0.005046 sign 0.004544 plant 0.004544 lease 0.004544 debt 0.004544 librari 0.004544 institut 0.004293 rohr 0.004293 stori 0.004293 mile 0.004042 engin 0.004042 feet 0.004042 la 0.004042

villag 0.004042 foot 0.004042 preserv 0.003791 complex 0.003791 chula 0.003791 locat 0.003791 foundat 0.003791 structur 0.003540 near 0.003540 landfill 0.003540 vacant 0.003540 counti 0.003289 Topic 73th: church 0.015900 japanes 0.013757 japan 0.013328 st 0.012471 emperor 0.010757 saturdai 0.010328 born 0.009043 memori 0.008614 death 0.008185 servic 0.007328 tokyo 0.006900 american 0.006043 snake 0.005614 plan 0.005614 hirohito 0.005614 funer 0.005186 mar 0.004757 fair 0.004328 commun 0.004328 fairground 0.003900 del 0.003900 tear 0.003900 conduct 0.003900 note 0.003471 woman 0.003471 prayer 0.003471 cultur 0.003471 organ 0.003471 stockton 0.003043 languag 0.003043 edward 0.003043 gather 0.003043 tran 0.003043 girl 0.003043 sign 0.002614

commemor 0.002614 near 0.002614 tradition 0.002614 accord 0.002614 di 0.002614 countri 0.002614 mourn 0.002614 solana 0.002614 congreg 0.002614 sen 0.002186 equival 0.002186 posit 0.002186 roman 0.002186 mass 0.002186 vietnames 0.002186 Topic 74th: hospit 0.053481 health 0.039372 medic 0.032588 counti 0.030146 care 0.025533 emerg 0.020106 patient 0.017393 servic 0.016850 aid 0.012237 mental 0.011423 center 0.011152 clinic 0.009253 physician 0.007896 supervisor 0.006811 sharp 0.006268 doctor 0.006268 staf 0.005454 surgeri 0.005183 treate 0.005183 clos 0.004911 ill 0.004911 pace 0.004640 jan 0.004640 facil 0.004369 bed 0.004097 practic 0.004097 month 0.004097 network 0.003826 nurs 0.003826 privat 0.003555 medicar 0.003555 provid 0.003555

commun 0.003283 close 0.003283 healthcar 0.003012 gate 0.003012 surgeon 0.002741 medicin 0.002469 closur 0.002469 suffer 0.002469 able 0.002469 local 0.002469 dr 0.002469 home 0.002469 paramed 0.002469 exampl 0.002198 director 0.002198 continu 0.002198 board 0.002198 ambul 0.002198 Topic 75th: west 0.053668 parti 0.021790 germani 0.017289 german 0.016914 govern 0.013164 elect 0.012789 berlin 0.012414 polit 0.009038 republican 0.009038 citi 0.008663 democrat 0.008288 democr 0.007538 christian 0.007538 europ 0.007163 nazi 0.006788 result 0.006413 nato 0.006413 nation 0.006413 seate 0.006038 kohl 0.006038 range 0.004538 leader 0.004538 treati 0.004538 datelin 0.004538 foreign 0.004163 sundai 0.004163 bon 0.004163 atlant 0.003788 legislatur 0.003413

success 0.003413 vote 0.003413 east 0.003413 offic 0.003038 nearli 0.003038 altern 0.003038 represent 0.003038 short 0.003038 subject 0.002663 cut 0.002663 chancellor 0.002663 helmut 0.002663 gain 0.002663 coalition 0.002663 modern 0.002663 social 0.002663 defeat 0.002288 shevardnadz 0.002288 jewish 0.002288 free 0.002288 six 0.002288 Topic 76th: million 0.017111 ticket 0.016594 six 0.015043 lotteri 0.009874 bui 0.008323 line 0.008323 lotto 0.008323 win 0.007806 winner 0.007806 prize 0.006772 pasadena 0.006772 jackpot 0.006772 player 0.005738 fridai 0.004187 rush 0.004187 bonu 0.003670 third 0.003670 chance 0.003153 anderson 0.003153 liquor 0.002636 george 0.002636 spin 0.002636 top 0.002636 monei 0.002636 time 0.002120 result 0.002120

largest 0.002120 spanish 0.002120 offici 0.002120 extend 0.002120 georgia 0.002120 bought 0.001603 gift 0.001603 al 0.001603 crowd 0.001603 saturdai 0.001603 letter 0.001603 heavi 0.001603 draw 0.001603 jan 0.001603 worth 0.001603 south 0.001603 award 0.001603 meanwhil 0.001603 assur 0.001603 chinatown 0.001603 christin 0.001603 swell 0.001603 ami 0.001086 stream 0.001086 Topic 77th: soviet 0.057661 union 0.016339 moscow 0.013620 right 0.008727 ussr 0.008727 confer 0.008183 earthquak 0.008183 human 0.008183 afghanistan 0.007911 govern 0.007911 newspap 0.007367 gorbachev 0.007095 countri 0.006824 armenia 0.006280 kabul 0.006008 foreign 0.006008 quake 0.005736 force 0.005736 talk 0.005464 kill 0.005464 arm 0.005192 critic 0.005192 capit 0.004921

visit 0.004921 offici 0.004921 troop 0.004649 armenian 0.004649 parti 0.004649 european 0.004377 afghan 0.004377 fridai 0.004105 attack 0.004105 datelin 0.004105 rebel 0.004105 cooper 0.004105 tass 0.004105 communist 0.003833 western 0.003833 secur 0.003833 embassi 0.003833 minist 0.003833 republ 0.003833 report 0.003833 citi 0.003833 relat 0.003561 itali 0.003561 izvestia 0.003561 disast 0.003561 reduct 0.003289 map 0.003289 Topic 78th: william 0.016564 bar 0.015188 seri 0.013352 roseann 0.011517 barret 0.010599 produc 0.007387 star 0.006929 rona 0.006929 script 0.006470 season 0.005552 co 0.005093 writer 0.004634 explain 0.004634 interview 0.004634 final 0.004175 maintain 0.004175 talent 0.003717 werner 0.003717 product 0.003717 abc 0.003717

quit 0.003258 compani 0.003258 creator 0.003258 writ 0.003258 credit 0.003258 mat 0.003258 occur 0.002799 stai 0.002799 didn 0.002799 creativ 0.002799 nam 0.002799 tartikof 0.002340 hit 0.002340 struggle 0.002340 describ 0.002340 stress 0.002340 assum 0.002340 decemb 0.002340 not 0.002340 comedian 0.002340 agent 0.001881 differ 0.001881 reportedli 0.001881 type 0.001881 alter 0.001881 appreci 0.001881 deepli 0.001881 claim 0.001881 spotlight 0.001881 ago 0.001881 Topic 79th: nuclear 0.020995 weapon 0.015045 unit 0.014478 missil 0.013912 plant 0.012778 chemic 0.012495 world 0.011645 confer 0.011645 energi 0.011362 libya 0.010795 crisi 0.009095 nation 0.008528 cuba 0.008528 particip 0.007678 cuban 0.007112 foreign 0.007112 depart 0.006545

libyan 0.006545 militari 0.006262 power 0.006262 defens 0.005695 iran 0.005695 meet 0.005412 arm 0.005412 american 0.005412 arab 0.005128 kadafi 0.004845 bomb 0.004278 product 0.004278 resolut 0.004278 reactor 0.004278 khrushchev 0.003995 mcnamara 0.003995 washington 0.003995 kennedi 0.003995 attack 0.003712 former 0.003428 countri 0.003428 leader 0.003428 deleg 0.003428 relat 0.003428 told 0.003145 soviet 0.003145 offici 0.003145 produc 0.003145 oil 0.003145 account 0.003145 urg 0.003145 war 0.002862 gulf 0.002862 Topic 80th: exchang 0.023403 chicago 0.022978 futur 0.015758 trade 0.015333 trader 0.014484 trad 0.012360 commod 0.011510 board 0.011086 price 0.011086 contract 0.010661 pit 0.009387 market 0.007263 investig 0.006414 deal 0.006414

thornburgh 0.005564 broker 0.004715 range 0.004290 fbi 0.003865 alleg 0.003865 subpoena 0.003865 critic 0.003865 exampl 0.003865 sell 0.003865 merc 0.003865 mercantil 0.003865 risk 0.003440 trend 0.003016 farmer 0.003016 reduc 0.003016 fortun 0.002591 floor 0.002591 seate 0.002591 record 0.002166 quick 0.002166 hundr 0.002166 pace 0.002166 carri 0.002166 corn 0.002166 ensur 0.002166 undercov 0.001741 reput 0.001741 sundai 0.001741 probe 0.001741 date 0.001741 green 0.001741 intellig 0.001741 special 0.001741 center 0.001741 attract 0.001741 boom 0.001741 Topic 81th: headlin 0.120467 length 0.116169 text 0.114449 type 0.110628 word 0.056274 subject 0.043378 bylin 0.040226 brief 0.025228 column 0.024560 nation 0.018159 datelin 0.012714

report 0.012332 wire 0.011473 new 0.010422 press 0.008320 intern 0.007365 servic 0.006887 morn 0.006123 people 0.005263 macmin 0.005263 aleen 0.005263 time 0.005072 mondai 0.004308 offici 0.004308 entertain 0.004308 digest 0.003831 art 0.003162 feb 0.003066 newswir 0.003066 held 0.003066 week 0.002971 world 0.002875 nam 0.002684 five 0.002493 chief 0.002493 ap 0.002398 includ 0.002016 dai 0.001633 eight 0.001633 letter 0.001538 america 0.001442 spokesman 0.001347 oper 0.001251 central 0.001060 local 0.000965 remain 0.000965 month 0.000965 announc 0.000965 former 0.000965 respons 0.000965 Topic 82th: heart 0.015285 diseas 0.011366 campbell 0.010930 fate 0.010495 tobacco 0.010059 food 0.007446 calori 0.006576 label 0.006576

cholesterol 0.006140 product 0.006140 soup 0.005705 total 0.005705 list 0.005269 health 0.005269 advertis 0.004834 gram 0.004834 mouth 0.004398 science 0.004398 research 0.004398 form 0.004398 cancer 0.003963 consum 0.003963 ad 0.003963 sodium 0.003963 gee 0.003527 weight 0.003527 smok 0.003527 style 0.003527 milligram 0.003092 ingredi 0.003092 flavor 0.003092 diet 0.003092 francisco 0.003092 reduc 0.002656 american 0.002656 complaint 0.002656 examin 0.002656 spokeswoman 0.002656 sought 0.002656 page 0.002656 guidelin 0.002656 exampl 0.002656 meal 0.002656 chew 0.002656 link 0.002656 stroke 0.002656 ounce 0.002656 associ 0.002221 snuf 0.002221 male 0.002221 Topic 83th: citi 0.029113 worker 0.014810 asbesto 0.013888 offici 0.011581 house 0.009274

plant 0.006967 remov 0.006505 permit 0.006044 histor 0.005583 ceil 0.005121 lee 0.005121 control 0.005121 cancer 0.004660 employe 0.004660 demolit 0.004660 dust 0.004199 juli 0.004199 six 0.004199 report 0.004199 plastic 0.003737 clos 0.003737 richard 0.003737 told 0.003737 build 0.003276 sewag 0.002814 cloth 0.002814 expos 0.002814 facil 0.002814 contractor 0.002814 particl 0.002353 seal 0.002353 protect 0.002353 list 0.002353 hazard 0.002353 time 0.002353 agree 0.002353 properti 0.002353 exposur 0.002353 treatment 0.002353 mckinlei 0.002353 vallei 0.002353 mansion 0.001892 manag 0.001892 stop 0.001892 loma 0.001892 action 0.001892 sheet 0.001892 condition 0.001892 contain 0.001892 halt 0.001892 Topic 84th: raider 0.014598 stadium 0.010806

irwindal 0.010174

coliseum 0.007015

corp 0.006383

miranda 0.002591

project 0.002591

prefer 0.002591

dec 0.002591

wildlif 0.002591

breach 0.001959

regist 0.001959

annual 0.001959

suddenli 0.001959

reich 0.001959

strike 0.001959

hung 0.001327

upper 0.001327

billi 0.001327

forev 0.001327

evalu 0.001327

parliam 0.001327

slick 0.001327

memor 0.001327

oct 0.001327

auction 0.001327

retard 0.001327

palm 0.001327

listen 0.001327

pos 0.001327

baja 0.001327

improp 0.001327

showman 0.001327

fled 0.001327

davi 0.001327

languag 0.001327

missionari 0.001327

tap 0.001327

sue 0.001327

arisen 0.001327

facil 0.001327

headlin 0.001327

mylod 0.001327

civic 0.001327

alcohol 0.001327

activ 0.001327

step 0.001327

offici 0.001327

editor 0.001327

hit 0.001327

## Topic 85th: car 0.020177 fire 0.019617 driver 0.016819 train 0.014580 cross 0.012901 injur 0.012341 hit 0.011781 accid 0.009823 caus 0.009263 children 0.008423 burn 0.008423 suffer 0.007864 block 0.007304 driv 0.007304 struck 0.007304 damag 0.007024 injuri 0.006744 graphic 0.006185 build 0.005905 bu 0.005345 stop 0.005065 park 0.005065 santa 0.005065 run 0.005065 vehicl 0.005065 track 0.004785 truck 0.004785 traffic 0.004506 railroad 0.004506 help 0.004226 morn 0.004226 collid 0.004226 lane 0.004226 firefight 0.003946 cause 0.003946 thursdai 0.003946 hospit 0.003946 condition 0.003666 house 0.003666 highwai 0.003666 near 0.003666 hurt 0.003666 minor 0.003666 crash 0.003666 safeti 0.003666 scene 0.003386

bentsen 0.003386

determin 0.003386 light 0.003386 passeng 0.003106 Topic 86th: dance 0.015043 sud 0.009874 canada 0.007806 fridai 0.006255 velasco 0.005221 allow 0.004704 limit 0.004704 beer 0.004704 breweri 0.004704 train 0.004187 choreographi 0.004187 choreograph 0.004187 danc 0.003670 ballet 0.003153 royal 0.003153 canadian 0.003153 convent 0.003153 movem 0.002636 cramer 0.002636 dancer 0.002636 audienc 0.002636 save 0.002636 passion 0.002120 dee 0.002120 lyceum 0.002120 columbia 0.002120 cindi 0.002120 extend 0.002120 advoc 0.002120 ucla 0.002120 compell 0.002120 movie 0.002120 appropri 0.001603 interpret 0.001603 segal 0.001603 date 0.001603 immigr 0.001603 bone 0.001603 faster 0.001603 instant 0.001603 quin 0.001603 form 0.001603 act 0.001603

thrown 0.001603

change 0.001603 led 0.001603 idea 0.001603 altogeth 0.001603 licens 0.001603 purpos 0.001603 Topic 87th: time 0.035426 people 0.016776 don 0.015684 dai 0.015029 re 0.012190 graphic 0.011753 look 0.011710 bylin 0.011273 text 0.011011 headlin 0.009002 call 0.008827 photo 0.008696 length 0.008565 little 0.008521 lot 0.007997 ve 0.007910 own 0.007866 didn 0.007298 feel 0.006949 week 0.006949 home 0.006862 hand 0.006818 start 0.006774 word 0.006469 try 0.006032 writer 0.005901 type 0.005901 ll 0.005464 john 0.005377 happen 0.005246 subject 0.005202 person 0.005071 life 0.005071 doesn 0.004896 told 0.004809 run 0.004809 staf 0.004678 help 0.004590 friend 0.004547 won 0.004547 tell 0.004285

left 0.004285 line 0.004241 world 0.004110 gui 0.004110 hard 0.004066 talk 0.003979 mean 0.003935 wasn 0.003804 believ 0.003761 Topic 88th: set 0.021423 court 0.016331 lendl 0.014972 mcenroe 0.014633 match 0.013614 plai 0.010898 australian 0.009880 defeat 0.009201 tournam 0.008861 winner 0.008861 tenni 0.008522 edberg 0.007843 minut 0.006145 seed 0.006145 serve 0.005806 datelin 0.005806 cash 0.005806 backhand 0.005466 player 0.005127 round 0.004787 won 0.004787 graf 0.004787 australia 0.004448 krickstein 0.004448 third 0.004108 grand 0.004108 slam 0.004108 hit 0.004108 ivanisev 0.003769 quarterfin 0.003769 meet 0.003769 lost 0.003429 past 0.003429 victori 0.003090 semifin 0.003090 becker 0.003090 event 0.003090 thoma 0.003090

feel 0.003090 american 0.003090 fourth 0.002750 qualifi 0.002750 final 0.002750 rank 0.002750 top 0.002750 steffi 0.002750 vollei 0.002750 abil 0.002411 cross 0.002411 pate 0.002411 Topic 89th: contract 0.045004 agree 0.012452 negoti 0.010902 million 0.010385 arbitr 0.007802 sign 0.007802 salari 0.007285 agreem 0.006769 page 0.006252 wednesdai 0.005219 fil 0.005219 term 0.004702 greg 0.004185 cover 0.003668 offer 0.003668 reach 0.003668 raise 0.003668 pakistan 0.003152 california 0.003152 signatur 0.003152 lack 0.003152 bylin 0.003152 final 0.002635 remain 0.002635 twin 0.002635 blank 0.002118 deputi 0.002118 miller 0.002118 make 0.002118 earn 0.002118 bat 0.002118 relief 0.002118 davi 0.002118 san 0.002118 dick 0.002118

didn 0.002118 manag 0.002118 feb 0.002118 separ 0.002118 joyner 0.002118 reconsid 0.002118 verbal 0.001602 attach 0.001602 ortiz 0.001602 deadlin 0.001602 unfortun 0.001602 chili 0.001602 dougla 0.001602 session 0.001602 head 0.001602 Topic 90th: lawsuit 0.015414

harbor 0.011223 settlem 0.010292 lawn 0.009826 heidi 0.007032 involv 0.006566 cohen 0.006566 cremat 0.006566 alleg 0.006100 defend 0.005635 class 0.005169 deal 0.004703 debt 0.004238 brazil 0.004238 delai 0.004238 forward 0.004238 payment 0.004238 fund 0.004238 plaintif 0.003772 origin 0.003772 claim 0.003772 file 0.003772 creditor 0.003772 determin 0.003772 funer 0.003772 distress 0.003306 design 0.003306 negoti 0.003306

collect 0.003306 demand 0.003306 emotion 0.002841 action 0.002841

unusu 0.002841 factor 0.002841 moratorium 0.002841 individu 0.002841 su 0.002841 protect 0.002841 mcmullen 0.002841 damag 0.002841 bai 0.002841 fair 0.002841 charge 0.002375 flyn 0.002375 litig 0.002375 remain 0.002375 question 0.002375 park 0.002375 legal 0.002375 arrang 0.002375 Topic 91th: presid 0.045602 bush 0.039808 reagan 0.031309 house 0.022038 unit 0.013346 elect 0.010836 nation 0.010256 white 0.010063 george 0.009484 washington 0.008904 congress 0.008904 inaugur 0.008518 administr 0.007745 foreign 0.007552 republican 0.007552 issue 0.006586 offic 0.006586 poll 0.006586 favor 0.006586 leader 0.006586 baker 0.006200 america 0.006200 datelin 0.006200 senat 0.006007 war 0.005621 secretari 0.005427 vice 0.005234 conserv 0.005041 quayle 0.004848

polici 0.004655 table 0.004655 relat 0.004655 ronald 0.004655 suggest 0.004462 aid 0.004462 soviet 0.004075 oppos 0.003689 world 0.003689 gorbachev 0.003496 capitol 0.003496 time 0.003303 barbara 0.003110 rep 0.003110 campaign 0.003110 american 0.003110 shultz 0.003110 cold 0.003110 appoint 0.002917 address 0.002917 advis 0.002917 Topic 92th: court 0.046328 judge 0.025618 prison 0.018769 sentenc 0.017465 attornei 0.016160 lawyer 0.014203 murder 0.013551 trial 0.012573 death 0.011920 rul 0.010779 wit 0.009148 hear 0.008985 appeal 0.008985 convict 0.008985 inform 0.008170 suit 0.008170 testifi 0.007681 defend 0.007354 prosecutor 0.007354 accus 0.007028 defens 0.006865 legal 0.006376 testimoni 0.006050 suprem 0.006050 justic 0.006050 inmat 0.006050

law 0.006050 district 0.005887 counti 0.005398 evid 0.005398 crime 0.005234 superior 0.005234 deni 0.004908 alleg 0.004745 deputi 0.004419 time 0.004419 atti 0.004256 row 0.004093 prosecut 0.004093 charg 0.003604 claim 0.003441 dismiss 0.003441 act 0.003441 tuesdai 0.003115 told 0.003115 kill 0.002952 rader 0.002952 jame 0.002952 woman 0.002952 confess 0.002952 Topic 93th: cavali 0.016636 knee 0.010828 quarter 0.009583 pick 0.008754 nba 0.008339 cleveland 0.007924 seattle 0.007509 price 0.006679 rest 0.006679 philadelphia 0.006265 draft 0.006265 clipper 0.006265 associ 0.005435 harper 0.005435 denver 0.005020 man 0.005020 dalla 0.005020 mondai 0.004605 road 0.004605 detroit 0.004605 charlott 0.004605 larri 0.004190 hornet 0.004190

warrior 0.004190 camp 0.004190 atlanta 0.004190 knick 0.004190 hawk 0.004190 george 0.003775 sun 0.003775 phoenix 0.003775 danni 0.003775 injuri 0.003775 rookie 0.003775 daugherti 0.003775 buck 0.003775 elli 0.003360 tripucka 0.002946 dali 0.002946 vork 0.002946 sent 0.002946 wilken 0.002946 superson 0.002946 rambi 0.002946 antonio 0.002946 grinker 0.002531 injur 0.002531 ron 0.002531 advis 0.002531 sacramento 0.002531 Topic 94th: airlin 0.023383 flight 0.019811 engin 0.018712 prime 0.015415 threate 0.015140 pan 0.013766 am 0.012667 mai 0.012117 plane 0.011293 passeng 0.009919 system 0.009919 american 0.009644 bomb 0.009370 crew 0.008820 airport 0.008545 boe 0.007996 british 0.007996 spokesman 0.007446 air 0.007446 delta 0.007172

datelin 0.006897 airplan 0.005523 inform 0.005523 england 0.005248 aircraft 0.005248 eastern 0.004699 wednesdai 0.004699 safeti 0.004424 believ 0.004424 reserv 0.004149 pilot 0.004149 fridai 0.003874 ireland 0.003874 carrier 0.003874 scotland 0.003599 dun 0.003599 lebow 0.003599 land 0.003599 warn 0.003599 accid 0.003325 crash 0.003325 york 0.003325 attend 0.003325 shut 0.003050 london 0.003050 union 0.003050 david 0.003050 hunt 0.003050 fly 0.003050 carri 0.002775 Topic 95th: game 0.050355 scor 0.022683 lead 0.020362 shot 0.020094 plai 0.017773 half 0.015631 headlin 0.011792 text 0.011435 bylin 0.011078 length 0.010899 victori 0.010453 left 0.010275 led 0.010007 type 0.009560 fullerton 0.009471 minut 0.009382 time 0.008846

throw 0.008579 team 0.008579 season 0.008221 rebound 0.007864 free 0.007686 night 0.007597 win 0.007329 word 0.006882 ball 0.006615 stori 0.006525 miss 0.006258 coach 0.006168 third 0.006079 start 0.006079 straight 0.006079 record 0.005990 remain 0.005901 beate 0.005811 run 0.005633 confer 0.005543 won 0.005454 foul 0.005365 loss 0.005008 guard 0.005008 santa 0.004919 hit 0.004740 overal 0.004562 pointer 0.004562 foot 0.004472 center 0.004383 score 0.004383 averag 0.004294 defens 0.004294 Topic 96th: drexel 0.026088 lowell 0.015280 michael 0.014788 milken 0.012332 letter 0.012332 brother 0.011349 hill 0.007419 shad 0.007419 lambert 0.005945 foundat 0.005945 burnham 0.005453 sec 0.005453 bond 0.004962

junk 0.004962

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      york 0.004471
      serv 0.004471
      firm 0.004471
      winfield 0.003980
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      beverli 0.002997
      length 0.002997
      consist 0.002997
      built 0.002506
      steinbrenn 0.002506
      potenti 0.002506
      half 0.002506
      force 0.002506
      join 0.002506
      secur 0.002506
      worker 0.002506
      imagin 0.002506
      fernando 0.002014
      settle 0.002014
      inadequ 0.002014
      record 0.002014
      approach 0.002014
      mike 0.002014
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      desk 0.002014
      violat 0.002014
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      larger 0.001523
      scot 0.001523
Topic 97th:
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      french 0.011403
      pari 0.008091
      la 0.007145
      street 0.006672
      le 0.005252
      american 0.004779
      rosa 0.004779
      bank 0.004306
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palo 0.004306 name 0.004306 centuri 0.004306 town 0.004306 france 0.003833 giant 0.003833 releas 0.002886 limit 0.002886 root 0.002886 foot 0.002886 napoleon 0.002413 democrat 0.002413 path 0.002413 rai 0.002413 modern 0.001940 suburb 0.001940 royal 0.001940 fashion 0.001940 system 0.001940 jean 0.001940 v 0.001940 loui 0.001940 headquart 0.001940 comment 0.001940 genre 0.001467 brick 0.001467 arc 0.001467 chic 0.001467 pedestrian 0.001467 planner 0.001467 oceansid 0.001467 class 0.001467 honor 0.001467 lin 0.001467 owner 0.001467 bottom 0.001467 glori 0.001467 eugen 0.001467 insid 0.001467 Topic 98th: saturdai 0.011885 wind 0.011546 sundai 0.011546 cold 0.011207 bird 0.009514 mountain 0.009514 rain 0.009514 temperatur 0.009514

degree 0.009514 california 0.008837 weather 0.008499 snow 0.008160 record 0.008160 coast 0.007483 count 0.007144 low 0.006467 expect 0.006129 night 0.006129 wednesdai 0.005451 hai 0.005451 southern 0.005451 ski 0.005113 northern 0.005113 shelter 0.004774 time 0.004774 found 0.004774 weekend 0.004774 forecast 0.004436 near 0.004436 morn 0.004097 speci 0.004097 spot 0.003758 system 0.003758 storm 0.003758 resort 0.003758 five 0.003758 below 0.003758 north 0.003758 drop 0.003420 santa 0.003420 freez 0.003081 thursdai 0.003081 winter 0.003081 mov 0.003081 game 0.002743 zero 0.002743 fridai 0.002743 rescuer 0.002743 inch 0.002743 ana 0.002743 Topic 99th: art 0.030751 film 0.021007 plai 0.016134 director 0.013698 artist 0.013324

museum 0.009951 actor 0.009763 review 0.009201 theater 0.009014 product 0.008264 exhibit 0.008264 pictur 0.006390 theatre 0.006203 imag 0.005641 stage 0.005453 role 0.005078 screen 0.004891 color 0.004704 paint 0.004704 critic 0.004704 produc 0.004704 feb 0.004516 organ 0.004516 scene 0.004516 photograph 0.004329 woman 0.004141 festiv 0.004141 cast 0.004141 charact 0.004141 graphic 0.003954 perform 0.003954 american 0.003954 life 0.003954 love 0.003767 stori 0.003767 globe 0.003767 robert 0.003579 jan 0.003392 sundai 0.003392 galleri 0.003204 mako 0.003204 direct 0.003204 bylin 0.003204 march 0.003204 studio 0.003017 comedi 0.003017 piece 0.003017 movie 0.003017 contemporari 0.003017 playwright 0.003017

We can see that the words which are related as groped together.