

## Answers to Question 4.1 & 4.2

### 4.1 - Which 20 words have the highest tf-idf scores in these documents ?

The output file is accessible here :

[https://github.com/Thibaultcos/BigData\\_Homework/tree/master/output\\_tfidf](https://github.com/Thibaultcos/BigData_Homework/tree/master/output_tfidf)

The top 20 words are :

Word, text tf-idf

|                             |                      |
|-----------------------------|----------------------|
| the,callwild                | 0.049686562740034475 |
| the,defoe-robinson-103.txt  | 0.03368342521495419  |
| and,callwild                | 0.033393383474535895 |
| i,defoe-robinson-103.txt    | 0.029398002159616504 |
| and,defoe-robinson-103.txt  | 0.02750670211786081  |
| to,defoe-robinson-103.txt   | 0.024604042235045417 |
| of,defoe-robinson-103.txt   | 0.020135774462679994 |
| of,callwild                 | 0.01901961488556192  |
| he,callwild                 | 0.017710925787931514 |
| was,callwild                | 0.015158982047552219 |
| to,callwild                 | 0.014722752348342083 |
| a                           | 0.014308334134092453 |
| a,defoe-robinson-103.txt    | 0.012919122037491335 |
| my,defoe-robinson-103.txt   | 0.012239168246044423 |
| his,callwild                | 0.01223624306284431  |
| in,callwild                 | 0.01169095593883164  |
| was,defoe-robinson-103.txt  | 0.011519217172747693 |
| in,defoe-robinson-103.txt   | 0.011067819277585456 |
| that,defoe-robinson-103.txt | 0.010799266099450961 |
| it,defoe-robinson-103.txt   | 0.0105421407161307   |

### 4.2 - Which 10 users have the highest PageRank scores in this social network?

The output file is accessible here :

[https://github.com/Thibaultcos/BigData\\_Homework/tree/master/output\\_Pagerank/PageRank/FinalOutput](https://github.com/Thibaultcos/BigData_Homework/tree/master/output_Pagerank/PageRank/FinalOutput)

The top 10 users are :

ID Pagerank

|      |                       |
|------|-----------------------|
| 763  | 0.004751382311249525  |
| 634  | 0.002997655000722514  |
| 645  | 0.0027720979182803665 |
| 5232 | 0.002240818906005603  |

|       |                       |
|-------|-----------------------|
| 71399 | 0.0022371581790451025 |
| 4920  | 0.002079488281140241  |
| 3924  | 0.0018189595100313529 |
| 2969  | 0.001443759677990109  |
| 1835  | 0.0014222231983002775 |
| 637   | 0.0012606686687434848 |