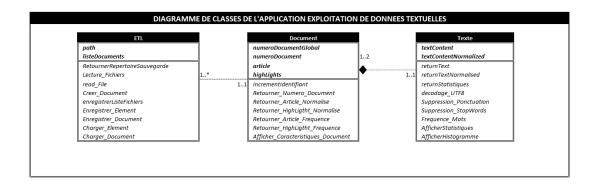
TP - Nettoyage textuel et analyse exploratoire - 2018-06-15

June 15, 2018

1 TP - Nettoyage textuel et analyse exploratoire



2 Classes du programme

2.1 Classe ETL

```
In [120]: import pickle
    import os
    import numpy as np

from sklearn.feature_extraction.text import CountVectorizer, TfidfTransformer, Tfidf
#from Document import Document
class ETL:
```

def __init__(self,path):

```
self.path = path
   os.chdir(path)
   self.listeDocuments = []
   self.FrequenceMotsHighLights = {}
   self.FrequenceMotsArticles = {}
   self.Matrice_TF_IDF_HighLights = {}
   self.Matrice_TF_IDF_Articles = {}
def retourner_calcul_frequence_mots(self):
   for index,document in enumerate(self.listeDocuments):
       print('Document nr {} -----'.format(index+1))
       print('Fréquence de mots HighLight : -----')
       print(document.Retourner_HighLightt_Frequence())
       print('Fréquence de mots Article : -----')
       print(document.Retourner_Article_Frequence())
       print('----')
def retourner calcul matrice idf(self):
   for index,document in enumerate(self.listeDocuments):
       print('Document nr {} -----'.format(index+1))
       print('Matrice TF-IDF HighLight : -----')
       print(document.Retourner_HighLightt_Matrice_TF_IDF())
       print('Matrice TF-IDF Article : -----')
       print(document.Retourner_Article_Matrice_TF_IDF())
       print('----')
def retourner_calcul_matrice_idf_global_Highlight(self):
   corpus = []
   for index,document in enumerate(self.listeDocuments):
       corpus.append(document.highLights.returnText())
   cvec = CountVectorizer(
                          lowercase=True,
                          tokenizer=None,
                          token_pattern=r'\w+')
   term_freq = cvec.fit_transform(corpus)
   matrice_tfidf = TfidfTransformer().fit_transform(term_freq)
   return matrice_tfidf
```

```
def retourner_calcul_matrice_idf_global_Article(self):
    corpus = []
    for index,document in enumerate(self.listeDocuments):
        corpus.append(document.article.returnText())
    cvec = CountVectorizer(
                            lowercase=True.
                            tokenizer=None,
                            token_pattern=r'\w+')
    term_freq = cvec.fit_transform(corpus)
    matrice_tfidf = TfidfTransformer().fit_transform(term_freq)
    return matrice_tfidf
def creation_Dictionnaire_HighLight_TF_IDF(self):
    for index,document in enumerate(self.listeDocuments):
        for items in document.Retourner_HighLightt_Matrice_TF_IDF():
                self.Matrice TF IDF HighLights[items.todok().keys()]+=1
            except:
                try:
                    self.Matrice_TF_IDF_HighLights[items.todok().keys()]=1
                except:
                    pass
    return self.Matrice_TF_IDF_HighLights
def creation_Dictionnaire_Article_TF_IDF(self):
    for index,document in enumerate(self.listeDocuments):
        for items in document.Retourner_Article_Matrice_TF_IDF():
            try:
                self.Matrice_TF_IDF_Article[items.todok().keys()]+=1
            except:
                    self.Matrice_TF_IDF_Article[items.todok().keys()]=1
                except:
                    pass
    return self.Matrice_TF_IDF_Article
def creation_Dictionnaire_HighLight_Frequence_Mots(self):
    for index,document in enumerate(self.listeDocuments):
        for items in document.Retourner_HighLightt_Frequence():
            try:
                self.FrequenceMotsHighLights[items[0]]+=items[1]
```

```
except:
                self.FrequenceMotsHighLights[items[0]]=items[1]
    return self.FrequenceMotsHighLights
def creation_Dictionnaire_Article_Frequence_Mots(self):
    for index,document in enumerate(self.listeDocuments):
        for items in document.Retourner_Article_Frequence():
            try:
                self.FrequenceMotsArticles[items[0]]+=items[1]
            except:
                self.FrequenceMotsArticles[items[0]]=items[1]
    return self.FrequenceMotsArticles
def retournerRepertoireSauvegarde(self):
    repertoireBackUp = self.path
    return repertoireBackUp
def Lecture_Fichiers(self):
    listeFichiers = os.listdir(self.path)
    for fichier in listeFichiers:
        self.Creer_Document(fichier)
def read_File(self,nameFile):
    Content = {}
    with open(nameFile,"rb") as myFile:
        myString = str(myFile.read())
        Content['Texte'] = myString[:int(myString.find('Ohighlight'))]
        Content['HighLight'] = myString[int(myString.find('@highlight')):]
    return Content
def Creer Document(self,nomFichier):
    fichier = self.read_File(nomFichier)
    document = Document(
                    fichier['Texte'],
                    fichier['HighLight'])
    self.listeDocuments.append(document)
def enregistrerListeFichiers(self):
    for document in self.listeDocuments:
        self.Enregistrer_Document(
```

```
document.Retourner_Numero_Document())
def Enregistrer Element(self,numeroDocument,contenu,suffixe):
    os.chdir(self.retournerRepertoireSauvegarde())
   nameFile = "Document_" + str(numeroDocument) + suffixe
   with open(nameFile,"wb") as myFichier:
       monPickler = pickle.Pickler(myFichier)
       monPickler.dump(contenu)
def Enregistrer_Document(self,numeroDocument):
    self.Enregistrer_Element(
                       numeroDocument,
                       self.listeDocuments[numeroDocument-1].Retourner_Article_i
                       '_Article')
   self.Enregistrer_Element(
                       numeroDocument,
                       self.listeDocuments[numeroDocument-1].Retourner_HighLigt
                       '_HighLights')
def Charger_Element(self,numeroDocument,suffixe):
   os.chdir(self.retournerRepertoireSauvegarde())
   nameFile = "Document_" + str(numeroDocument) + suffixe
   with open(nameFile, "rb") as myFichiers:
       monDe_Pickler = pickle.Unpickler(myFichiers)
       return monDe_Pickler.load()
def Charger_Document(self,numeroDocument):
   print('----')
   print('ARTICLE Nr {} '.format(numeroDocument))
   print('----')
   print(
           self.Charger_Element(
                              numeroDocument,
                              '_Article'))
   print('HIGHLIGHTS Nr {} '.format(numeroDocument))
   print('----')
   print(
           self.Charger_Element(
                              numeroDocument,
                              '_HighLights'))
```

2.2 Classe Document

```
In [79]: #from Texte import Texte
        class Document:
            numeroDocumentGlobal = 0
            @classmethod
            def IncrementIdentifiant(self):
                self.numeroDocumentGlobal += 1
            def __init__(self, textArticle, textHighLights):
                self.IncrementIdentifiant()
                self.numeroDocument = self.numeroDocumentGlobal
                self.article = Texte(textArticle)
                self.highLights = Texte(textHighLights)
                self.Afficher_Caracteristiques_Document()
            def Retourner_Numero_Document(self):
                return self.numeroDocument
            def Retourner_Article_Normalise(self):
                return self.article.returnTextNormalised()
            def Retourner_HighLigtht_Normalise(self):
                return self.highLights.returnTextNormalised()
            def Retourner_Article_Frequence(self):
                return self.article.ListeMotsTriee
            def Retourner_HighLigtht_Frequence(self):
                return self.highLights.ListeMotsTriee
            def Retourner_Article_Matrice_TF_IDF(self):
                return self.article.retourner_Matrice_TF_IDF()
            def Retourner_HighLigtht_Matrice_TF_IDF(self):
                return self.highLights.retourner_Matrice_TF_IDF()
            def Afficher_Caracteristiques_Document(self):
                print('----')
                print('Caractéristiques du document {}'.format(self.Retourner_Numero_Document
                print('----')
                print('HIGHLIGHTS du document {}'.format(self.Retourner_Numero_Document()))
                self.highLights.AfficherStatistiques()
```

```
print('ARTICLES du document {}'.format(self.Retourner_Numero_Document()))
print('----')
self.article.AfficherHistogramme()
```

2.3 Classe Texte

```
In [80]: import nltk
         import pandas as pd
         from operator import itemgetter
         class Texte:
             def __init__(self,stringData):
                 self.textContent = stringData
                 self.textContentNormalized = self.Suppression_StopWords(
                                                  self.Suppression_Ponctuation(
                                                              self.decodage_UTF8(
                                                                      self.returnText()))
             def returnText(self):
                 return self.textContent
             def returnTextNormalised(self):
                 return self.textContentNormalized
             def returnStatistiques(self):
                 self.Frequence_Mots()
                 return self.statsMots
             def decodage_UTF8(self,text):
                 by = bytes(text, 'utf-8')
                 textDecode = by.decode('utf-8').lower()
                 return textDecode
             def Suppression_Ponctuation(self,text):
                 tokenizer = nltk.RegexpTokenizer(r'\w+')
                 tokenisation = tokenizer.tokenize(text)
                 return tokenisation
             def Suppression_StopWords(self,text):
                 texteSansStopWords = []
                 nltk.download('stopwords')
```

```
listeStopWord = nltk.corpus.stopwords.words('english')
   listeStopWord.append('â')
   listeStopWord.append('n')
   listeStopWord.append('xc2')
   listeStopWord.append('xc3')
   listeStopWord.append('000')
   texteSansStopWords += [word for word in text if not word in listeStopWord]
   return texteSansStopWords
def Frequence_Mots(self):
   stats = nltk.FreqDist(self.textContentNormalized)
   self.NombreMots = len(self.textContentNormalized)
   self.NombreMotsUniques = len(stats)
   self.ListeMotsTriee = sorted(stats.items(),key=itemgetter(1),reverse=True)
   self.statsMots = stats
def Analyse_Matrice_TF_IDF(self,Phrases):
   cvec = CountVectorizer(
                          lowercase=True,
                          tokenizer=None,
                          token_pattern=r'\w+')
   term_freq = cvec.fit_transform(Phrases)
   phrases_tfidf = TfidfTransformer().fit_transform(term_freq)
   self.matrice_TF_IDF = phrases_tfidf
def retourner_Matrice_TF_IDF(self):
   try:
       self.Analyse_Matrice_TF_IDF(self.textContentNormalized)
       return self.matrice_TF_IDF
   except:
       return [[1]]
def AfficherStatistiques(self):
   self.Frequence_Mots()
   print('----')
   print('Le texte comporte {} mot(s) '.format(self.NombreMots))
   print('----')
   print('Le texte comporte {} mot(s) unique(s) '.format(self.NombreMotsUniques)
   print('----')
   for occurence in self.ListeMotsTriee:
       print('Le mot {} a {} occurrence(s)'.format(occurence[0],occurence[1]))
```

```
def AfficherHistogramme(self):
    donnees = pd.Series(self.returnStatistiques())

    donneesTop = donnees.nlargest(20)
    donneesTrieesTop = donneesTop.sort_values(ascending=True)

    donneesTrieesTop.plot.barh(color="#318CE7",title="Distribution des 20 occurrent")
```

print('----')

3 Mise en oeuvre du programme

3.1 Importation des données

```
In [121]: imp = ETL("E:\\Data\\RawData\\Exploit_data_texte\\Test")
         imp.Lecture_Fichiers()
[nltk_data] Downloading package stopwords to
[nltk_data]
               C:\Users\monne\AppData\Roaming\nltk_data...
             Package stopwords is already up-to-date!
[nltk_data]
[nltk_data] Downloading package stopwords to
               C:\Users\monne\AppData\Roaming\nltk_data...
[nltk_data]
[nltk_data] Package stopwords is already up-to-date!
Caractéristiques du document 298
HIGHLIGHTS du document 298
Le texte comporte 50 mot(s)
_____
Le texte comporte 46 mot(s) unique(s)
-----
Le mot highlight a 4 occurrence(s)
Le mot nhe a 2 occurrence(s)
Le mot nnicholas a 1 occurrence(s)
Le mot levene a 1 occurrence(s)
Le mot must a 1 occurrence(s)
Le mot pay a 1 occurrence(s)
Le mot nominal a 1 occurrence(s)
Le mot sum a 1 occurrence(s)
Le mot bankrupt a 1 occurrence(s)
Le mot used a 1 occurrence(s)
Le mot money a 1 occurrence(s)
Le mot private a 1 occurrence(s)
Le mot jets a 1 occurrence(s)
Le mot super a 1 occurrence(s)
Le mot yachts a 1 occurrence(s)
Le mot xa3150 a 1 occurrence(s)
```

```
Le mot year a 1 occurrence(s)
Le mot box a 1 occurrence(s)
Le mot ascot a 1 occurrence(s)
Le mot host a 1 occurrence(s)
Le mot xa310 a 1 occurrence(s)
Le mot day a 1 occurrence(s)
Le mot pheasant a 1 occurrence(s)
Le mot shoots a 1 occurrence(s)
Le mot nthe a 1 occurrence(s)
Le mot city a 1 occurrence(s)
Le mot trader a 1 occurrence(s)
Le mot spent a 1 occurrence(s)
Le mot xa3588 a 1 occurrence(s)
Le mot son a 1 occurrence(s)
Le mot bar a 1 occurrence(s)
Le mot mitzvah a 1 occurrence(s)
Le mot hiring a 1 occurrence(s)
Le mot girl a 1 occurrence(s)
Le mot band a 1 occurrence(s)
Le mot saturday a 1 occurrence(s)
Le mot tricked a 1 occurrence(s)
Le mot britain a 1 occurrence(s)
Le mot successful a 1 occurrence(s)
Le mot businessmen a 1 occurrence(s)
Le mot including a 1 occurrence(s)
Le mot stagecoach a 1 occurrence(s)
Le mot boss a 1 occurrence(s)
Le mot sir a 1 occurrence(s)
Le mot brian a 1 occurrence(s)
Le mot souter a 1 occurrence(s)
_____
ARTICLES du document 298
_____
[nltk_data] Downloading package stopwords to
            C:\Users\monne\AppData\Roaming\nltk data...
[nltk data]
           Package stopwords is already up-to-date!
[nltk data]
[nltk data] Downloading package stopwords to
[nltk data]
             C:\Users\monne\AppData\Roaming\nltk_data...
           Package stopwords is already up-to-date!
[nltk_data]
-----
Caractéristiques du document 299
_____
HIGHLIGHTS du document 299
_____
Le texte comporte 61 mot(s)
-----
Le texte comporte 54 mot(s) unique(s)
```

```
Le mot highlight a 5 occurrence(s)
Le mot four a 3 occurrence(s)
Le mot tuesday a 2 occurrence(s)
Le mot nbella a 1 occurrence(s)
Le mot rodriguez a 1 occurrence(s)
Le mot torres a 1 occurrence(s)
Le mot diagnosed a 1 occurrence(s)
Le mot stage a 1 occurrence(s)
Le mot alveolar a 1 occurrence(s)
Le mot nrhabdomyosarcoma a 1 occurrence(s)
Le mot age a 1 occurrence(s)
Le mot nthe a 1 occurrence(s)
Le mot brave a 1 occurrence(s)
Le mot 10 a 1 occurrence(s)
Le mot year a 1 occurrence(s)
Le mot old a 1 occurrence(s)
Le mot fought a 1 occurrence(s)
Le mot illness a 1 occurrence(s)
Le mot came a 1 occurrence(s)
Le mot back a 1 occurrence(s)
Le mot times a 1 occurrence(s)
Le mot nher a 1 occurrence(s)
Le mot parents a 1 occurrence(s)
Le mot chronicled a 1 occurrence(s)
Le mot countless a 1 occurrence(s)
Le mot chemotherapy a 1 occurrence(s)
Le mot radiation a 1 occurrence(s)
Le mot treatments a 1 occurrence(s)
Le mot facebook a 1 occurrence(s)
Le mot 62 a 1 occurrence(s)
Le mot followers a 1 occurrence(s)
Le mot website a 1 occurrence(s)
Le mot nshe a 1 occurrence(s)
Le mot passed a 1 occurrence(s)
Le mot away a 1 occurrence(s)
Le mot peacefully a 1 occurrence(s)
Le mot surrounded a 1 occurrence(s)
Le mot family a 1 occurrence(s)
Le mot friends a 1 occurrence(s)
Le mot nat a 1 occurrence(s)
Le mot night a 1 occurrence(s)
Le mot miami a 1 occurrence(s)
Le mot heat a 1 occurrence(s)
Le mot vs a 1 occurrence(s)
Le mot pacers a 1 occurrence(s)
Le mot game a 1 occurrence(s)
Le mot lebron a 1 occurrence(s)
Le mot james a 1 occurrence(s)
```

```
Le mot wrote a 1 occurrence(s)
Le mot livelikebella a 1 occurrence(s)
Le mot sneakers a 1 occurrence(s)
Le mot honor a 1 occurrence(s)
Le mot young a 1 occurrence(s)
Le mot fan a 1 occurrence(s)
ARTICLES du document 299
_____
[nltk_data] Downloading package stopwords to
[nltk_data]
              C:\Users\monne\AppData\Roaming\nltk_data...
            Package stopwords is already up-to-date!
[nltk_data]
[nltk_data] Downloading package stopwords to
[nltk_data]
             C:\Users\monne\AppData\Roaming\nltk_data...
[nltk_data] Package stopwords is already up-to-date!
_____
Caractéristiques du document 300
_____
HIGHLIGHTS du document 300
_____
Le texte comporte 50 mot(s)
______
Le texte comporte 41 mot(s) unique(s)
-----
Le mot highlight a 6 occurrence(s)
Le mot months a 2 occurrence(s)
Le mot cancer a 2 occurrence(s)
Le mot nshe a 2 occurrence(s)
Le mot travel a 2 occurrence(s)
Le mot njessica a 1 occurrence(s)
Le mot weller a 1 occurrence(s)
Le mot set a 1 occurrence(s)
Le mot epic a 1 occurrence(s)
Le mot adventure a 1 occurrence(s)
Le mot lifetime a 1 occurrence(s)
Le mot 2013 a 1 occurrence(s)
Le mot nbut a 1 occurrence(s)
Le mot three a 1 occurrence(s)
Le mot travelling a 1 occurrence(s)
Le mot diagnosed a 1 occurrence(s)
Le mot breast a 1 occurrence(s)
Le mot nthe a 1 occurrence(s)
Le mot 29 a 1 occurrence(s)
Le mot year a 1 occurrence(s)
Le mot old a 1 occurrence(s)
Le mot received a 1 occurrence(s)
Le mot 18 a 1 occurrence(s)
Le mot chemotherapy a 1 occurrence(s)
```

```
Le mot five a 1 occurrence(s)
Le mot surgeries a 1 occurrence(s)
Le mot treated a 1 occurrence(s)
Le mot like a 1 occurrence(s)
Le mot companion a 1 occurrence(s)
Le mot named a 1 occurrence(s)
Le mot mr a 1 occurrence(s)
Le mot lumpy a 1 occurrence(s)
Le mot xa0 a 1 occurrence(s)
Le mot pushed a 1 occurrence(s)
Le mot continued a 1 occurrence(s)
Le mot work a 1 occurrence(s)
Le mot ncancer a 1 occurrence(s)
Le mot removed a 1 occurrence(s)
Le mot last a 1 occurrence(s)
Le mot january a 1 occurrence(s)
Le mot returned a 1 occurrence(s)
ARTICLES du document 300
_____
[nltk data] Downloading package stopwords to
              C:\Users\monne\AppData\Roaming\nltk_data...
[nltk data]
[nltk_data]
           Package stopwords is already up-to-date!
[nltk data] Downloading package stopwords to
[nltk_data]
              C:\Users\monne\AppData\Roaming\nltk_data...
[nltk_data] Package stopwords is already up-to-date!
_____
Caractéristiques du document 301
_____
HIGHLIGHTS du document 301
_____
Le texte comporte 45 mot(s)
_____
Le texte comporte 41 mot(s) unique(s)
_____
Le mot highlight a 3 occurrence(s)
Le mot nthe a 2 occurrence(s)
Le mot jacket a 2 occurrence(s)
Le mot glowfaster a 1 occurrence(s)
Le mot sports a 1 occurrence(s)
Le mot syncs a 1 occurrence(s)
Le mot runner a 1 occurrence(s)
Le mot xe2 a 1 occurrence(s)
Le mot x80 a 1 occurrence(s)
Le mot x99s a 1 occurrence(s)
Le mot smartphone a 1 occurrence(s)
Le mot uses a 1 occurrence(s)
Le mot flashing a 1 occurrence(s)
```

```
Le mot lights a 1 occurrence(s)
Le mot indicate a 1 occurrence(s)
Le mot whether a 1 occurrence(s)
Le mot nthey a 1 occurrence(s)
Le mot running a 1 occurrence(s)
Le mot right a 1 occurrence(s)
Le mot pace a 1 occurrence(s)
Le mot xa399 a 1 occurrence(s)
Le mot claims a 1 occurrence(s)
Le mot waterproof a 1 occurrence(s)
Le mot breathable a 1 occurrence(s)
Le mot created a 1 occurrence(s)
Le mot ex a 1 occurrence(s)
Le mot marine a 1 occurrence(s)
Le mot features a 1 occurrence(s)
Le mot zip a 1 occurrence(s)
Le mot lighting a 1 occurrence(s)
Le mot strips a 1 occurrence(s)
Le mot nit a 1 occurrence(s)
Le mot works a 1 occurrence(s)
Le mot app a 1 occurrence(s)
Le mot tracks a 1 occurrence(s)
Le mot person a 1 occurrence(s)
Le mot performance a 1 occurrence(s)
Le mot look a 1 occurrence(s)
Le mot biofeedback a 1 occurrence(s)
Le mot set a 1 occurrence(s)
Le mot goals a 1 occurrence(s)
_____
ARTICLES du document 301
_____
[nltk_data] Downloading package stopwords to
[nltk_data]
              C:\Users\monne\AppData\Roaming\nltk_data...
            Package stopwords is already up-to-date!
[nltk_data]
[nltk data] Downloading package stopwords to
[nltk data]
              C:\Users\monne\AppData\Roaming\nltk_data...
[nltk data] Package stopwords is already up-to-date!
______
Caractéristiques du document 302
_____
HIGHLIGHTS du document 302
_____
Le texte comporte 89 mot(s)
_____
Le texte comporte 73 mot(s) unique(s)
-----
Le mot highlight a 7 occurrence(s)
Le mot reeve a 5 occurrence(s)
```

```
Le mot williams a 3 occurrence(s)
```

- Le mot nafter a 2 occurrence(s)
- Le mot old a 2 occurrence(s)
- Le mot friend a 2 occurrence(s)
- Le mot going a 2 occurrence(s)
- Le mot none a 1 occurrence(s)
- Le mot treasured a 1 occurrence(s)
- Le mot relationships a 1 occurrence(s)
- Le mot robin a 1 occurrence(s)
- Le mot life a 1 occurrence(s)
- Le mot enduring a 1 occurrence(s)
- Le mot friendship a 1 occurrence(s)
- Le mot fellow a 1 occurrence(s)
- Le mot actor a 1 occurrence(s)
- Le mot christopher a 1 occurrence(s)
- Le mot nthe a 1 occurrence(s)
- Le mot pair a 1 occurrence(s)
- Le mot met a 1 occurrence(s)
- Le mot 1973 a 1 occurrence(s)
- Le mot roommates a 1 occurrence(s)
- Le mot julliard a 1 occurrence(s)
- Le mot school a 1 occurrence(s)
- Le mot new a 1 occurrence(s)
- Le mot york a 1 occurrence(s)
- Le mot city a 1 occurrence(s)
- Le mot ntheir a 1 occurrence(s)
- Le mot careers a 1 occurrence(s)
- Le mot later a 1 occurrence(s)
- Le mot took a 1 occurrence(s)
- Le mot time a 1 occurrence(s)
- Le mot late a 1 occurrence(s)
- Le mot 1970s a 1 occurrence(s)
- Le mot mork a 1 occurrence(s)
- Le mot mindy a 1 occurrence(s)
- Le mot superman a 1 occurrence(s)
- Le mot paralyzing a 1 occurrence(s)
- Le mot horse a 1 occurrence(s)
- Le mot riding a 1 occurrence(s)
- Le mot accident a 1 occurrence(s)
- Le mot 1995 a 1 occurrence(s)
- Le mot revealed a 1 occurrence(s)
- Le mot spirits a 1 occurrence(s)
- Le mot lifted a 1 occurrence(s)
- Le mot paid a 1 occurrence(s)
- Le mot surprise a 1 occurrence(s)
- Le mot visit a 1 occurrence(s)
- Le mot nwilliams a 1 occurrence(s)
- Le mot showed a 1 occurrence(s)

```
Le mot hospital a 1 occurrence(s)
Le mot npretending a 1 occurrence(s)
Le mot eccentric a 1 occurrence(s)
Le mot russian a 1 occurrence(s)
Le mot proctologist a 1 occurrence(s)
Le mot nperform a 1 occurrence(s)
Le mot rectal a 1 occurrence(s)
Le mot exam a 1 occurrence(s)
Le mot helped a 1 occurrence(s)
Le mot know a 1 occurrence(s)
Le mot somehow a 1 occurrence(s)
Le mot okay a 1 occurrence(s)
Le mot wrote a 1 occurrence(s)
Le mot autobiography a 1 occurrence(s)
Le mot death a 1 occurrence(s)
Le mot 2004 a 1 occurrence(s)
Le mot dedicated a 1 occurrence(s)
Le mot cecil a 1 occurrence(s)
Le mot b a 1 occurrence(s)
Le mot demille a 1 occurrence(s)
Le mot award a 1 occurrence(s)
Le mot golden a 1 occurrence(s)
Le mot globes a 1 occurrence(s)
ARTICLES du document 302
_____
[nltk_data] Downloading package stopwords to
[nltk_data]
              C:\Users\monne\AppData\Roaming\nltk_data...
            Package stopwords is already up-to-date!
[nltk_data]
[nltk_data] Downloading package stopwords to
              C:\Users\monne\AppData\Roaming\nltk_data...
[nltk_data]
[nltk_data]
           Package stopwords is already up-to-date!
_____
Caractéristiques du document 303
_____
HIGHLIGHTS du document 303
_____
Le texte comporte 59 mot(s)
-----
Le texte comporte 52 mot(s) unique(s)
-----
Le mot highlight a 7 occurrence(s)
Le mot found a 2 occurrence(s)
Le mot ndane a 1 occurrence(s)
Le mot kowalski a 1 occurrence(s)
Le mot mother a 1 occurrence(s)
Le mot said a 1 occurrence(s)
Le mot note a 1 occurrence(s)
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Le mot revealed a 1 occurrence(s)
Le mot bitten a 1 occurrence(s)
Le mot snake a 1 occurrence(s)
Le mot nthe a 1 occurrence(s)
Le mot details a 1 occurrence(s)
Le mot suggests a 1 occurrence(s)
Le mot went a 1 occurrence(s)
Le mot scouring a 1 occurrence(s)
Le mot bushland a 1 occurrence(s)
Le mot sticks a 1 occurrence(s)
Le mot nsticks a 1 occurrence(s)
Le mot wedged a 1 occurrence(s)
Le mot underneath a 1 occurrence(s)
Le mot tyres a 1 occurrence(s)
Le mot traction a 1 occurrence(s)
Le mot ntributes a 1 occurrence(s)
Le mot flowing a 1 occurrence(s)
Le mot facebook a 1 occurrence(s)
Le mot page a 1 occurrence(s)
Le mot find a 1 occurrence(s)
Le mot dane a 1 occurrence(s)
Le mot nearlier a 1 occurrence(s)
Le mot week a 1 occurrence(s)
Le mot 27 a 1 occurrence(s)
Le mot year a 1 occurrence(s)
Le mot old a 1 occurrence(s)
Le mot ute a 1 occurrence(s)
Le mot remote a 1 occurrence(s)
Le mot highway a 1 occurrence(s)
Le mot nhe a 1 occurrence(s)
Le mot left a 1 occurrence(s)
Le mot melbourne a 1 occurrence(s)
Le mot home a 1 occurrence(s)
Le mot december a 1 occurrence(s)
Le mot 12 a 1 occurrence(s)
Le mot fishing a 1 occurrence(s)
Le mot trip a 1 occurrence(s)
Le mot darwin a 1 occurrence(s)
Le mot nthere a 1 occurrence(s)
Le mot trace a 1 occurrence(s)
Le mot police a 1 occurrence(s)
Le mot recovered a 1 occurrence(s)
Le mot body a 1 occurrence(s)
Le mot friday a 1 occurrence(s)
Le mot xa0 a 1 occurrence(s)
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ARTICLES du document 303

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Caractéristiques du document 304
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HIGHLIGHTS du document 304
_____
Le texte comporte 50 mot(s)
_____
Le texte comporte 42 mot(s) unique(s)
_____
Le mot highlight a 6 occurrence(s)
Le mot servants a 2 occurrence(s)
Le mot master a 2 occurrence(s)
Le mot would a 2 occurrence(s)
Le mot nlife a 1 occurrence(s)
Le mot late a 1 occurrence(s)
Le mot victorian a 1 occurrence(s)
Le mot early a 1 occurrence(s)
Le mot edwardian a 1 occurrence(s)
Le mot britain a 1 occurrence(s)
Le mot brutal a 1 occurrence(s)
Le mot nnew a 1 occurrence(s)
Le mot staff a 1 occurrence(s)
Le mot often a 1 occurrence(s)
Le mot given a 1 occurrence(s)
Le mot generic a 1 occurrence(s)
Le mot names a 1 occurrence(s)
Le mot henry a 1 occurrence(s)
Le mot sarah a 1 occurrence(s)
Le mot ntasks a 1 occurrence(s)
Le mot included a 1 occurrence(s)
Le mot clipping a 1 occurrence(s)
Le mot toenails a 1 occurrence(s)
Le mot ironing a 1 occurrence(s)
Le mot shoelaces a 1 occurrence(s)
Le mot nmaids a 1 occurrence(s)
Le mot able a 1 occurrence(s)
Le mot turn a 1 occurrence(s)
Le mot sexual a 1 occurrence(s)
Le mot advances a 1 occurrence(s)
Le mot nover a 1 occurrence(s)
Le mot 1 a 1 occurrence(s)
Le mot 5 a 1 occurrence(s)
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Le mot million a 1 occurrence(s)
Le mot british a 1 occurrence(s)
Le mot people a 1 occurrence(s)
Le mot worked a 1 occurrence(s)
Le mot nmost a 1 occurrence(s)
Le mot uk a 1 occurrence(s)
Le mot population a 1 occurrence(s)
Le mot downstairs a 1 occurrence(s)
Le mot upstairs a 1 occurrence(s)
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ARTICLES du document 304
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Caractéristiques du document 305
_____
HIGHLIGHTS du document 305
_____
Le texte comporte 43 mot(s)
_____
Le texte comporte 40 mot(s) unique(s)
-----
Le mot highlight a 3 occurrence(s)
Le mot 99 a 2 occurrence(s)
Le mot napple a 1 occurrence(s)
Le mot approached a 1 occurrence(s)
Le mot dozen a 1 occurrence(s)
Le mot names a 1 occurrence(s)
Le mot like a 1 occurrence(s)
Le mot florence a 1 occurrence(s)
Le mot machine a 1 occurrence(s)
Le mot effort a 1 occurrence(s)
Le mot get a 1 occurrence(s)
Le mot top a 1 occurrence(s)
Le mot talent a 1 occurrence(s)
Le mot beats a 1 occurrence(s)
Le mot exclusively a 1 occurrence(s)
Le mot nbeats a 1 occurrence(s)
Le mot music a 1 occurrence(s)
Le mot launched a 1 occurrence(s)
Le mot coming a 1 occurrence(s)
Le mot months a 1 occurrence(s)
Le mot 9 a 1 occurrence(s)
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Le mot month a 1 occurrence(s)
Le mot subscription a 1 occurrence(s)
Le mot individuals a 1 occurrence(s)
Le mot family a 1 occurrence(s)
Le mot plan a 1 occurrence(s)
Le mot 14 a 1 occurrence(s)
Le mot njay a 1 occurrence(s)
Le mot z a 1 occurrence(s)
Le mot tidal a 1 occurrence(s)
Le mot thing a 1 occurrence(s)
Le mot tries a 1 occurrence(s)
Le mot convince a 1 occurrence(s)
Le mot artists a 1 occurrence(s)
Le mot sign a 1 occurrence(s)
Le mot exclusive a 1 occurrence(s)
Le mot deals a 1 occurrence(s)
Le mot beat a 1 occurrence(s)
Le mot competition a 1 occurrence(s)
Le mot xa0 a 1 occurrence(s)
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ARTICLES du document 305
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Caractéristiques du document 306
_____
HIGHLIGHTS du document 306
_____
Le texte comporte 41 mot(s)
_____
Le texte comporte 35 mot(s) unique(s)
Le mot highlight a 4 occurrence(s)
Le mot plague a 2 occurrence(s)
Le mot nthey a 2 occurrence(s)
Le mot samples a 2 occurrence(s)
Le mot nscientists a 1 occurrence(s)
Le mot examining a 1 occurrence(s)
Le mot skeletons a 1 occurrence(s)
Le mot victims a 1 occurrence(s)
Le mot unearthed a 1 occurrence(s)
Le mot clerkenwell a 1 occurrence(s)
Le mot london a 1 occurrence(s)
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Le mot compared a 1 occurrence(s)
Le mot dna a 1 occurrence(s)
Le mot taken a 1 occurrence(s)
Le mot bones a 1 occurrence(s)
Le mot recent a 1 occurrence(s)
Le mot outbreak a 1 occurrence(s)
Le mot madagascar a 1 occurrence(s)
Le mot killed a 1 occurrence(s)
Le mot 60 a 1 occurrence(s)
Le mot people a 1 occurrence(s)
Le mot nthe a 1 occurrence(s)
Le mot two a 1 occurrence(s)
Le mot almost a 1 occurrence(s)
Le mot perfect a 1 occurrence(s)
Le mot match a 1 occurrence(s)
Le mot meaning a 1 occurrence(s)
Le mot virulent a 1 occurrence(s)
Le mot today a 1 occurrence(s)
Le mot believe a 1 occurrence(s)
Le mot disease a 1 occurrence(s)
Le mot airborne a 1 occurrence(s)
Le mot spread a 1 occurrence(s)
Le mot coughs a 1 occurrence(s)
Le mot sneezes a 1 occurrence(s)
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ARTICLES du document 306
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Caractéristiques du document 307
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HIGHLIGHTS du document 307
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Le texte comporte 18 mot(s)
-----
Le texte comporte 17 mot(s) unique(s)
_____
Le mot highlight a 2 occurrence(s)
Le mot nbrave a 1 occurrence(s)
Le mot pensioner a 1 occurrence(s)
Le mot janet a 1 occurrence(s)
Le mot martyn a 1 occurrence(s)
Le mot 73 a 1 occurrence(s)
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Le mot circled a 1 occurrence(s)
Le mot three a 1 occurrence(s)
Le mot creatures a 1 occurrence(s)
Le mot nthe a 1 occurrence(s)
Le mot londoner a 1 occurrence(s)
Le mot volunteer a 1 occurrence(s)
Le mot cango a 1 occurrence(s)
Le mot wildlife a 1 occurrence(s)
Le mot ranch a 1 occurrence(s)
Le mot south a 1 occurrence(s)
Le mot africa a 1 occurrence(s)
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ARTICLES du document 307
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Caractéristiques du document 308
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HIGHLIGHTS du document 308
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Le texte comporte 15 mot(s)
_____
Le texte comporte 15 mot(s) unique(s)
_____
Le mot highlight a 1 occurrence(s)
Le mot nduke a 1 occurrence(s)
Le mot cambridge a 1 occurrence(s)
Le mot reveals a 1 occurrence(s)
Le mot tore a 1 occurrence(s)
Le mot original a 1 occurrence(s)
Le mot guest a 1 occurrence(s)
Le mot list a 1 occurrence(s)
Le mot included a 1 occurrence(s)
Le mot names a 1 occurrence(s)
Le mot 777 a 1 occurrence(s)
Le mot people a 1 occurrence(s)
Le mot neither a 1 occurrence(s)
Le mot bride a 1 occurrence(s)
Le mot knew a 1 occurrence(s)
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ARTICLES du document 308
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Caractéristiques du document 309
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HIGHLIGHTS du document 309
_____
Le texte comporte 68 mot(s)
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Le texte comporte 56 mot(s) unique(s)
_____
Le mot highlight a 7 occurrence(s)
Le mot xe2 a 2 occurrence(s)
Le mot x80 a 2 occurrence(s)
Le mot x99s a 2 occurrence(s)
Le mot bid a 2 occurrence(s)
Le mot employer a 2 occurrence(s)
Le mot said a 2 occurrence(s)
Le mot nhacker a 1 occurrence(s)
Le mot list a 1 occurrence(s)
Le mot lets a 1 occurrence(s)
Le mot hacker a 1 occurrence(s)
Le mot jobs a 1 occurrence(s)
Le mot posted a 1 occurrence(s)
Le mot users a 1 occurrence(s)
Le mot called a 1 occurrence(s)
Le mot employers a 1 occurrence(s)
Le mot nan a 1 occurrence(s)
Le mot describes a 1 occurrence(s)
Le mot hacking a 1 occurrence(s)
Le mot task a 1 occurrence(s)
Le mot need a 1 occurrence(s)
Le mot budget a 1 occurrence(s)
Le mot nregistered a 1 occurrence(s)
Le mot hackers a 1 occurrence(s)
Le mot tasks a 1 occurrence(s)
Le mot selects a 1 occurrence(s)
Le mot work a 1 occurrence(s)
Le mot nall a 1 occurrence(s)
Le mot members a 1 occurrence(s)
Le mot listed a 1 occurrence(s)
Le mot anonymously a 1 occurrence(s)
Le mot provide a 1 occurrence(s)
Le mot email a 1 occurrence(s)
Le mot physical a 1 occurrence(s)
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Le mot address a 1 occurrence(s)
Le mot registering a 1 occurrence(s)
Le mot nsite a 1 occurrence(s)
Le mot endorse a 1 occurrence(s)
Le mot condone a 1 occurrence(s)
Le mot illegal a 1 occurrence(s)
Le mot activities a 1 occurrence(s)
Le mot nit a 1 occurrence(s)
Le mot believed a 1 occurrence(s)
Le mot registered a 1 occurrence(s)
Le mot new a 1 occurrence(s)
Le mot zealand a 1 occurrence(s)
Le mot founders a 1 occurrence(s)
Le mot revealed a 1 occurrence(s)
Le mot identities a 1 occurrence(s)
Le mot nsecurity a 1 occurrence(s)
Le mot expert a 1 occurrence(s)
Le mot xa0the a 1 occurrence(s)
Le mot site a 1 occurrence(s)
Le mot people a 1 occurrence(s)
Le mot ethics a 1 occurrence(s)
Le mot skills a 1 occurrence(s)
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Caractéristiques du document 310
_____
HIGHLIGHTS du document 310
_____
Le texte comporte 27 mot(s)
_____
Le texte comporte 24 mot(s) unique(s)
-----
Le mot highlight a 3 occurrence(s)
Le mot sinclair a 2 occurrence(s)
Le mot nleonora a 1 occurrence(s)
Le mot found a 1 occurrence(s)
Le mot guilty a 1 occurrence(s)
Le mot manslaughter a 1 occurrence(s)
Le mot cleared a 1 occurrence(s)
Le mot murder a 1 occurrence(s)
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Le mot ncourt a 1 occurrence(s)
Le mot heard a 1 occurrence(s)
Le mot lloyd a 1 occurrence(s)
Le mot frightened a 1 occurrence(s)
Le mot wife a 1 occurrence(s)
Le mot attacked a 1 occurrence(s)
Le mot previous a 1 occurrence(s)
Le mot occasions a 1 occurrence(s)
Le mot nhe a 1 occurrence(s)
Le mot stabbed a 1 occurrence(s)
Le mot thigh a 1 occurrence(s)
Le mot kitchen a 1 occurrence(s)
Le mot knife a 1 occurrence(s)
Le mot trying a 1 occurrence(s)
Le mot watch a 1 occurrence(s)
Le mot football a 1 occurrence(s)
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Caractéristiques du document 311
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HIGHLIGHTS du document 311
_____
Le texte comporte 35 mot(s)
-----
Le texte comporte 33 mot(s) unique(s)
_____
Le mot highlight a 3 occurrence(s)
Le mot nexum a 1 occurrence(s)
Le mot speight a 1 occurrence(s)
Le mot dna a 1 occurrence(s)
Le mot found a 1 occurrence(s)
Le mot body a 1 occurrence(s)
Le mot douglas a 1 occurrence(s)
Le mot stumler a 1 occurrence(s)
Le mot 30 a 1 occurrence(s)
Le mot cold a 1 occurrence(s)
Le mot case a 1 occurrence(s)
Le mot investigation a 1 occurrence(s)
Le mot advances a 1 occurrence(s)
Le mot technology a 1 occurrence(s)
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Le mot nthe a 1 occurrence(s)
Le mot pair a 1 occurrence(s)
Le mot argued a 1 occurrence(s)
Le mot stolen a 1 occurrence(s)
Le mot property a 1 occurrence(s)
Le mot murder a 1 occurrence(s)
Le mot nspeight a 1 occurrence(s)
Le mot 50 a 1 occurrence(s)
Le mot continued a 1 occurrence(s)
Le mot boxing a 1 occurrence(s)
Le mot 2001 a 1 occurrence(s)
Le mot famously a 1 occurrence(s)
Le mot lost a 1 occurrence(s)
Le mot current a 1 occurrence(s)
Le mot heavyweight a 1 occurrence(s)
Le mot champion a 1 occurrence(s)
Le mot wladimir a 1 occurrence(s)
Le mot klitschko a 1 occurrence(s)
Le mot 1996 a 1 occurrence(s)
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ARTICLES du document 311
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Caractéristiques du document 312
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HIGHLIGHTS du document 312
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Le texte comporte 30 mot(s)
_____
Le texte comporte 26 mot(s) unique(s)
Le mot highlight a 3 occurrence(s)
Le mot theory a 2 occurrence(s)
Le mot xa0 a 2 occurrence(s)
Le mot nbig a 1 occurrence(s)
Le mot bang a 1 occurrence(s)
Le mot star a 1 occurrence(s)
Le mot mayim a 1 occurrence(s)
Le mot bialik a 1 occurrence(s)
Le mot follows a 1 occurrence(s)
Le mot attachment a 1 occurrence(s)
Le mot parenting a 1 occurrence(s)
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Le mot ncontroversial a 1 occurrence(s)
Le mot philosophy a 1 occurrence(s)
Le mot sees a 1 occurrence(s)
Le mot parents a 1 occurrence(s)
Le mot sleep a 1 occurrence(s)
Le mot alongside a 1 occurrence(s)
Le mot babies a 1 occurrence(s)
Le mot night a 1 occurrence(s)
Le mot baby a 1 occurrence(s)
Le mot wearing a 1 occurrence(s)
Le mot mothers a 1 occurrence(s)
Le mot carry a 1 occurrence(s)
Le mot offspring a 1 occurrence(s)
Le mot sling a 1 occurrence(s)
Le mot day a 1 occurrence(s)
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Caractéristiques du document 313
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HIGHLIGHTS du document 313
_____
Le texte comporte 28 mot(s)
_____
Le texte comporte 24 mot(s) unique(s)
_____
Le mot highlight a 3 occurrence(s)
Le mot united a 2 occurrence(s)
Le mot right a 2 occurrence(s)
Le mot nander a 1 occurrence(s)
Le mot herrera a 1 occurrence(s)
Le mot started a 1 occurrence(s)
Le mot last a 1 occurrence(s)
Le mot eight a 1 occurrence(s)
Le mot games a 1 occurrence(s)
Le mot manchester a 1 occurrence(s)
Le mot nmidfielder a 1 occurrence(s)
Le mot says a 1 occurrence(s)
Le mot team a 1 occurrence(s)
Le mot league a 1 occurrence(s)
Le mot xa0 a 1 occurrence(s)
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Le mot nherrera a 1 occurrence(s)
Le mot scored a 1 occurrence(s)
Le mot twice a 1 occurrence(s)
Le mot aston a 1 occurrence(s)
Le mot villa a 1 occurrence(s)
Le mot man a 1 occurrence(s)
Le mot 3 a 1 occurrence(s)
Le mot 1 a 1 occurrence(s)
Le mot victory a 1 occurrence(s)
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ARTICLES du document 313
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Caractéristiques du document 314
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HIGHLIGHTS du document 314
_____
Le texte comporte 33 mot(s)
_____
Le texte comporte 29 mot(s) unique(s)
_____
Le mot highlight a 4 occurrence(s)
Le mot police a 2 occurrence(s)
Le mot nformer a 1 occurrence(s)
Le mot head a 1 occurrence(s)
Le mot west a 1 occurrence(s)
Le mot yorkshire a 1 occurrence(s)
Le mot would a 1 occurrence(s)
Le mot faced a 1 occurrence(s)
Le mot dismissal a 1 occurrence(s)
Le mot nsir a 1 occurrence(s)
Le mot norman a 1 occurrence(s)
Le mot questioned a 1 occurrence(s)
Le mot fairness a 1 occurrence(s)
Le mot ipcc a 1 occurrence(s)
Le mot process a 1 occurrence(s)
Le mot nleft a 1 occurrence(s)
Le mot force a 1 occurrence(s)
Le mot october a 1 occurrence(s)
Le mot last a 1 occurrence(s)
Le mot year a 1 occurrence(s)
Le mot cannot a 1 occurrence(s)
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Le mot face a 1 occurrence(s)
Le mot disciplinary a 1 occurrence(s)
Le mot action a 1 occurrence(s)
Le mot nvictim a 1 occurrence(s)
Le mot mother a 1 occurrence(s)
Le mot calls a 1 occurrence(s)
Le mot stripped a 1 occurrence(s)
Le mot knighthood a 1 occurrence(s)
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ARTICLES du document 314
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Caractéristiques du document 315
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HIGHLIGHTS du document 315
_____
Le texte comporte 61 mot(s)
_____
Le texte comporte 47 mot(s) unique(s)
_____
Le mot highlight a 7 occurrence(s)
Le mot nshe a 3 occurrence(s)
Le mot lives a 2 occurrence(s)
Le mot works a 2 occurrence(s)
Le mot son a 2 occurrence(s)
Le mot child a 2 occurrence(s)
Le mot money a 2 occurrence(s)
Le mot xa0 a 2 occurrence(s)
Le mot nevita a 1 occurrence(s)
Le mot kossman a 1 occurrence(s)
Le mot husband a 1 occurrence(s)
Le mot bristol a 1 occurrence(s)
Le mot poland a 1 occurrence(s)
Le mot mateusz a 1 occurrence(s)
Le mot aged a 1 occurrence(s)
Le mot 10 a 1 occurrence(s)
Le mot nfather a 1 occurrence(s)
Le mot sends a 1 occurrence(s)
Le mot xa3220 a 1 occurrence(s)
Le mot month a 1 occurrence(s)
Le mot benefit a 1 occurrence(s)
Le mot tax a 1 occurrence(s)
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Le mot credit a 1 occurrence(s)
Le mot nmother a 1 occurrence(s)
Le mot said a 1 occurrence(s)
Le mot positively a 1 occurrence(s)
Le mot surprised a 1 occurrence(s)
Le mot get a 1 occurrence(s)
Le mot handouts a 1 occurrence(s)
Le mot uk a 1 occurrence(s)
Le mot full a 1 occurrence(s)
Le mot time a 1 occurrence(s)
Le mot running a 1 occurrence(s)
Le mot successful a 1 occurrence(s)
Le mot xa0restaurant a 1 occurrence(s)
Le mot nso a 1 occurrence(s)
Le mot spends a 1 occurrence(s)
Le mot extra a 1 occurrence(s)
Le mot food a 1 occurrence(s)
Le mot toys a 1 occurrence(s)
Le mot cinema a 1 occurrence(s)
Le mot trips a 1 occurrence(s)
Le mot says a 1 occurrence(s)
Le mot xa0scrounger a 1 occurrence(s)
Le mot british a 1 occurrence(s)
Le mot system a 1 occurrence(s)
Le mot entitles a 1 occurrence(s)
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ARTICLES du document 315
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Caractéristiques du document 316
HIGHLIGHTS du document 316
_____
Le texte comporte 68 mot(s)
Le texte comporte 56 mot(s) unique(s)
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Le mot highlight a 5 occurrence(s)
Le mot shot a 3 occurrence(s)
Le mot rodger a 2 occurrence(s)
Le mot opened a 2 occurrence(s)
Le mot fire a 2 occurrence(s)
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Le mot two a 2 occurrence(s)
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- Le mot friends a 2 occurrence(s)
- Le mot say a 2 occurrence(s)
- Le mot nbianca a 1 occurrence(s)
- Le mot de a 1 occurrence(s)
- Le mot kock a 1 occurrence(s)
- Le mot 20 a 1 occurrence(s)
- Le mot five a 1 occurrence(s)
- Le mot times a 1 occurrence(s)
- Le mot elliot a 1 occurrence(s)
- Le mot walked a 1 occurrence(s)
- Le mot sorority a 1 occurrence(s)
- Le mot house a 1 occurrence(s)
- Le mot nshe a 1 occurrence(s)
- Le mot arm a 1 occurrence(s)
- Le mot chest a 1 occurrence(s)
- Le mot died a 1 occurrence(s)
- Le mot nin a 1 occurrence(s)
- Le mot first a 1 occurrence(s)
- Le mot interview a 1 occurrence(s)
- Le mot recounted a 1 occurrence(s)
- Le mot seeing a 1 occurrence(s)
- Le mot smile a 1 occurrence(s)
- Le mot saying a 1 occurrence(s)
- Le mot looked a 1 occurrence(s)
- Le mot happy a 1 occurrence(s)
- Le mot nafter a 1 occurrence(s)
- Le mot called a 1 occurrence(s)
- Le mot mother a 1 occurrence(s)
- Le mot thought a 1 occurrence(s)
- Le mot going a 1 occurrence(s)
- Le mot die a 1 occurrence(s)
- Le mot stranger a 1 occurrence(s)
- Le mot found a 1 occurrence(s)
- Le mot cop a 1 occurrence(s)
- Le mot comforted a 1 occurrence(s)
- Le mot nanother a 1 occurrence(s)
- Le mot survivor a 1 occurrence(s)
- Le mot nick a 1 occurrence(s)
- Le mot pasichuke a 1 occurrence(s)
- Le mot also a 1 occurrence(s)
- Le mot spoken a 1 occurrence(s)
- Le mot overcome a 1 occurrence(s)
- Le mot injuries a 1 occurrence(s)
- Le mot get a 1 occurrence(s)
- Le mot back a 1 occurrence(s)
- Le mot water a 1 occurrence(s)
- Le mot polo a 1 occurrence(s)

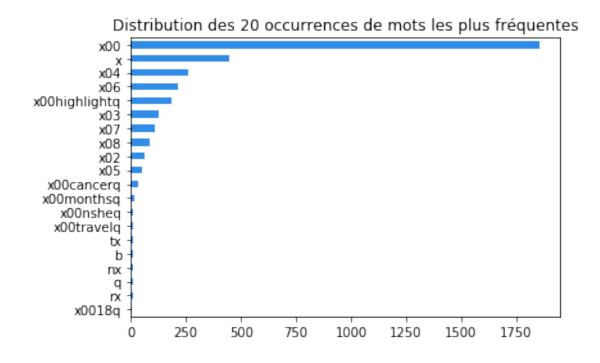
```
Le mot team a 1 occurrence(s)
Le mot next a 1 occurrence(s)
Le mot season a 1 occurrence(s)
ARTICLES du document 316
_____
[nltk data] Downloading package stopwords to
[nltk_data]
              C:\Users\monne\AppData\Roaming\nltk_data...
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[nltk_data]
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Caractéristiques du document 317
_____
HIGHLIGHTS du document 317
_____
Le texte comporte 34 mot(s)
_____
Le texte comporte 31 mot(s) unique(s)
_____
Le mot highlight a 4 occurrence(s)
Le mot nkate a 1 occurrence(s)
Le mot visited a 1 occurrence(s)
Le mot blessed a 1 occurrence(s)
Le mot sacrament a 1 occurrence(s)
Le mot school a 1 occurrence(s)
Le mot islington a 1 occurrence(s)
Le mot north a 1 occurrence(s)
Le mot london a 1 occurrence(s)
Le mot nviewing a 1 occurrence(s)
Le mot progress a 1 occurrence(s)
Le mot pact a 1 occurrence(s)
Le mot plus a 1 occurrence(s)
Le mot project a 1 occurrence(s)
Le mot addresses a 1 occurrence(s)
Le mot addiction a 1 occurrence(s)
Le mot families a 1 occurrence(s)
Le mot nshe a 1 occurrence(s)
Le mot joined a 1 occurrence(s)
Le mot comedian a 1 occurrence(s)
Le mot john a 1 occurrence(s)
Le mot bishop a 1 occurrence(s)
Le mot also a 1 occurrence(s)
Le mot supports a 1 occurrence(s)
Le mot cause a 1 occurrence(s)
Le mot nduchess a 1 occurrence(s)
Le mot wore a 1 occurrence(s)
```

```
Le mot salmon a 1 occurrence(s)
Le mot pink a 1 occurrence(s)
Le mot dress a 1 occurrence(s)
Le mot goat a 1 occurrence(s)
-----
ARTICLES du document 317
[nltk_data] Downloading package stopwords to
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[nltk_data]
[nltk_data]
            Package stopwords is already up-to-date!
_____
Caractéristiques du document 318
_____
HIGHLIGHTS du document 318
_____
Le texte comporte 36 mot(s)
_____
Le texte comporte 32 mot(s) unique(s)
-----
Le mot highlight a 4 occurrence(s)
Le mot midwife a 2 occurrence(s)
Le mot nelleanor a 1 occurrence(s)
Le mot bennett a 1 occurrence(s)
Le mot died a 1 occurrence(s)
Le mot 27 a 1 occurrence(s)
Le mot hours a 1 occurrence(s)
Le mot birth a 1 occurrence(s)
Le mot february a 1 occurrence(s)
Le mot 2004 a 1 occurrence(s)
Le mot na a 1 occurrence(s)
Le mot failed a 1 occurrence(s)
Le mot take a 1 occurrence(s)
Le mot baby a 1 occurrence(s)
Le mot heart a 1 occurrence(s)
Le mot rate a 1 occurrence(s)
Le mot 43 a 1 occurrence(s)
Le mot minutes a 1 occurrence(s)
Le mot labour a 1 occurrence(s)
Le mot nan a 1 occurrence(s)
Le mot investigation a 1 occurrence(s)
Le mot carried a 1 occurrence(s)
Le mot staff a 1 occurrence(s)
Le mot furness a 1 occurrence(s)
Le mot general a 1 occurrence(s)
Le mot hospital a 1 occurrence(s)
```

```
Le mot nthe a 1 occurrence(s)
Le mot probe a 1 occurrence(s)
Le mot critical a 1 occurrence(s)
Le mot elleanor a 1 occurrence(s)
Le mot parents a 1 occurrence(s)
Le mot told a 1 occurrence(s)
ARTICLES du document 318
-----
[nltk_data] Downloading package stopwords to
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            C:\Users\monne\AppData\Roaming\nltk_data...
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_____
Caractéristiques du document 319
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HIGHLIGHTS du document 319
-----
Le texte comporte 0 mot(s)
_____
Le texte comporte 0 mot(s) unique(s)
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ARTICLES du document 319
_____
[nltk_data] Downloading package stopwords to
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Caractéristiques du document 320
_____
HIGHLIGHTS du document 320
_____
Le texte comporte 0 mot(s)
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Le texte comporte 0 mot(s) unique(s)
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_____
ARTICLES du document 320
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[nltk_data]
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<pre>[nltk_data] Downloading package stopwords to [nltk_data]</pre>
Caractéristiques du document 321
HIGHLIGHTS du document 321
Le texte comporte 0 mot(s)
Le texte comporte 0 mot(s) unique(s)
ARTICLES du document 321
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Caractéristiques du document 322
HIGHLIGHTS du document 322
Le texte comporte 0 mot(s)
Le texte comporte 0 mot(s) unique(s)
ARTICLES du document 322
<pre>[nltk_data] Downloading package stopwords to [nltk_data]</pre>
Caractéristiques du document 323
HIGHLIGHTS du document 323
Le texte comporte 0 mot(s)
Le texte comporte 0 mot(s) unique(s)

ARTICLES du document 324



3.2 Calcul des fréquences de mots pour chaque document

In [104]: imp.retourner_calcul_frequence_mots()

```
Document nř 1 -----
Fréquence de mots HighLight : -----
[('highlight', 4), ('nhe', 2), ('nnicholas', 1), ('levene', 1), ('must', 1), ('pay', 1), ('nom
Fréquence de mots Article : -----
[('xe2', 12), ('x80', 12), ('levene', 10), ('pay', 7), ('xa31', 5), ('year', 5), ('x99s', 5),
-----
Document nř 2 -----
Fréquence de mots HighLight : -----
[('highlight', 5), ('four', 3), ('tuesday', 2), ('nbella', 1), ('rodriguez', 1), ('torres', 1)
Fréquence de mots Article : -----
[('bella', 16), ('cancer', 7), ('battle', 6), ('parents', 6), ('tumors', 6), ('little', 6), (']
_____
Document nř 3 -----
Fréquence de mots HighLight : -----
[('highlight', 6), ('months', 2), ('cancer', 2), ('nshe', 2), ('travel', 2), ('njessica', 1),
Fréquence de mots Article : -----
[('weller', 23), ('nms', 15), ('cancer', 11), ('2014', 10), ('said', 9), ('2013', 8), ('right'
```

```
Document nř 9 -----
Fréquence de mots HighLight : -----
[('highlight', 4), ('plague', 2), ('nthey', 2), ('samples', 2), ('nscientists', 1), ('examining
Fréquence de mots Article : -----
[('nthe', 10), ('skeletons', 9), ('black', 8), ('plague', 8), ('london', 7), ('death', 7), ('x
-----
Document nř 10 -----
Fréquence de mots HighLight : -----
[('highlight', 2), ('nbrave', 1), ('pensioner', 1), ('janet', 1), ('martyn', 1), ('73', 1), ('vanet', 1), ('nbrave', 1), ('pensioner', 1), ('janet', 1), ('martyn', 1), ('nbrave', 1), ('nbrave', 1), ('nbrave', 1), ('pensioner', 1), ('pensioner
Fréquence de mots Article : -----
[('janet', 8), ('face', 7), ('water', 5), ('crocodiles', 5), ('species', 4), ('one', 3), ('danger')
_____
Document nř 11 -----
Fréquence de mots HighLight : -----
[('highlight', 1), ('nduke', 1), ('cambridge', 1), ('reveals', 1), ('tore', 1), ('original', 1)
Fréquence de mots Article : -----
[('queen', 16), ('said', 10), ('duke', 8), ('william', 7), ('prince', 7), ('wedding', 5), ('nti
Document nř 12 -----
Fréquence de mots HighLight : -----
[('highlight', 7), ('xe2', 2), ('x80', 2), ('x99s', 2), ('bid', 2), ('employer', 2), ('said', 2)
Fréquence de mots Article : -----
[('xe2', 66), ('x80', 66), ('site', 28), ('xa0', 24), ('x99s', 19), ('list', 18), ('x99', 18),
```

```
Document nř 17 -----
Fréquence de mots HighLight : -----
[('highlight', 4), ('police', 2), ('nformer', 1), ('head', 1), ('west', 1), ('yorkshire', 1),
Fréquence de mots Article : -----
[('xe2', 19), ('x80', 19), ('hillsborough', 11), ('police', 10), ('norman', 9), ('said', 9), (
_____
Document nř 18 -----
Fréquence de mots HighLight : -----
[('highlight', 7), ('nshe', 3), ('lives', 2), ('works', 2), ('son', 2), ('child', 2), ('money'
Fréquence de mots Article : -----
[('xa0', 17), ('benefits', 15), ('son', 13), ('britain', 11), ('money', 10), ('month', 9), ('son', 10)
_____
Document nř 19 -----
Fréquence de mots HighLight : -----
[('highlight', 5), ('shot', 3), ('rodger', 2), ('opened', 2), ('fire', 2), ('two', 2), ('friend')
Fréquence de mots Article : -----
[('kock', 11), ('said', 11), ('rodger', 8), ('people', 8), ('de', 7), ('also', 7), ('two', 5),
Document nř 20 -----
Fréquence de mots HighLight : -----
[('highlight', 4), ('nkate', 1), ('visited', 1), ('blessed', 1), ('sacrament', 1), ('school',
Fréquence de mots Article : -----
[('duchess', 26), ('children', 20), ('kate', 20), ('school', 18), ('nthe', 11), ('addiction',
```

```
Document nr 25 ------
Fréquence de mots HighLight : -----

[]
Fréquence de mots Article : -----

[('x00', 123), ('x', 20), ('x04', 12), ('x05', 9), ('x06', 7), ('x07', 6), ('x03', 5), ('x00hi)
------

Document nr 26 -------

Fréquence de mots HighLight : -----

[]
Fréquence de mots Article : ------

[('x00', 1858), ('x00x', 447), ('x01', 262), ('x02', 211), ('x04', 184), ('x06', 126), ('x05',
```

3.3 Fréquence globale des mots pour les documents de type HighLights

```
In [55]: imp.creation_Dictionnaire_HighLight_Frequence_Mots()
```

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Out[55]: {'1': 2,
          '10': 2,
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           '30': 1,
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3.4 Fréquence globale des mots pour les documents de type Articles

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3.5 Matrices TF_IDF pour chaque document
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Document nř 20 -----
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Document nř 21 -----
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Document nř 22 -----
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  (7, 7)
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                 1.0
  (9, 60)
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                  1.0
  (10, 6)
                  1.0
  (11, 6)
                  1.0
  (12, 29)
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  (13, 54)
                  1.0
  (14, 61)
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  (15, 6)
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  (16, 6)
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  (244, 39)
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Matrice TF-IDF Article : -----
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                1.0
  (8, 7)
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  (9, 63)
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  (13, 7)
                  1.0
  (14, 280)
                    1.0
  (15, 478)
                   1.0
  (16, 479)
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  (17, 7)
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  (3423, 7)
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  (3425, 477)
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  (3426, 7)
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  (3428, 487)
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  (3429, 7)
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  (3430, 7)
                    1.0
  (3431, 79)
                    1.0
  (3432, 477)
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  (3433, 7)
                    1.0
  (3434, 464)
                      1.0
  (3435, 481)
                      1.0
  (3436, 7)
                    1.0
                    1.0
  (3437, 7)
  (3438, 162)
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  (3439, 477)
                      1.0
  (3440, 7)
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Document nř 25 -----
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Matrice TF-IDF Article : -----
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(262, 60) (263, 4) (264, 8) (265, 8) (266, 35) (267, 76) (268, 8) (269, 8) (270, 51) (271, 7) (272, 70) (273, 8) (274, 8) (275, 31) (276, 7) (277, 70) (278, 8) (279, 8) (280, 62) (281, 7) (282, 66)	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
(283, 8) (284, 8) (285, 23)	1.0 1.0 1.0

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(286, 1)
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Document nř 26 -----
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  (7, 7)
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                 1.0
  (18, 7)
                 1.0
  (19, 217)
                   1.0
  (20, 602)
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  (21, 607)
                   1.0
  (22, 7)
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  (23, 7)
                 1.0
  (24, 162)
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  (4525, 777)
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  (4526, 599)
                     1.0
  (4527, 7)
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  (4528, 582)
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  (4529, 7)
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  (4530, 7)
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  (4533, 599)
                     1.0
  (4534, 7)
                   1.0
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(4535, 582)
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  (4536, 607)
                      1.0
  (4537, 7)
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  (4540, 781)
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  (4543, 156)
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Document nř 27 -----
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                   1.0
  (219, 59)
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                   1.0
  (221, 6)
                   1.0
  (222, 29)
                   1.0
  (223, 5)
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(224, 59)
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                 1.0
(236, 20)
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(237, 61)
                 1.0
(238, 6)
                 1.0
(239, 6)
                 1.0
(240, 37)
                  1.0
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3.6 Calcul de la matrice TF-IDF globale pour les documents de type HighLights

In [119]: print(imp.retourner_calcul_matrice_idf_global_Highlight())

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(0, 275)
                0.155020238177
(0, 387)
                0.387550595442
(0, 439)
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(0, 333)
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(0, 385)
                0.113628903429
(0, 498)
                0.113628903429
(0, 648)
                0.125193307735
(0, 441)
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(0, 626)
                0.113628903429
(0, 78)
               0.100968329154
(0, 265)
                0.0745116075272
(0, 302)
                0.0703421140724
(0, 73)
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(0, 421)
                0.183971017502
(0, 698)
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(0, 374)
                0.100968329154
(0, 228)
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(0, 519)
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(0, 309)
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(0, 755)
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(0, 27)
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(0, 753)
                0.19012349177
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                0.113628903429
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(0, 0)	0.302904987462
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(20, 388)	0.13647291415
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(20, 244)	0.13647291415
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(20, 637)	0.13647291415
(20, 666)	0.13647291415

3.7 Calcul de la matrice TF_IDF globale pour les documents de type Article

In [122]: print(imp.retourner_calcul_matrice_idf_global_Article())

```
(0, 357)
                0.00691244687711
(0, 565)
                0.0534062035226
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(26, 5211)
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```

3.8 Test de l'enregistrement de documents

In [14]: imp.enregistrerListeFichiers()

3.9 Test du chargement du texte de documents

```
In [15]: imp.Charger_Document(2)
------
ARTICLE Nr 2
```

['b', 'nhelen', 'pow', 'npublished', 'n09', '16', 'est', '29', 'may', '2013', 'nupdated', 'n10

HIGHLIGHTS Nř 2

['highlight', 'nbella', 'rodriguez', 'torres', 'diagnosed', 'stage', 'four', 'alveolar', 'nrha'