

CWordTM Toolkit Usage on the Holy Bible (CUV)

This Jupyter notebook demonstrates how to use the package "CWordTM" on the Holy Bible (Chinese Union Version - Traditional Chinese):

1. Text Visualization - Word Cloud
2. OT Quotes

Full Demonstration:

https://github.com/drjohnnycheng/CWordTM/blob/main/Demo/CWordTM_C

CWordTM Toolkit's Documentation: <https://cwordtm.readthedocs.io>

```
In [1]: import warnings
warnings.filterwarnings('ignore')
```

```
In [2]: # Import the Package CWordTM
import cwordtm
from cwordtm import *
```

1. Text Visualization - Word Cloud

```
In [3]: # Load the whole Bible (Chinese Union Version)
bible = "cuv.csv"
cdf = util.load_word(bible)
```

Loading file 'D:\Dev\Anaconda3\lib\site-packages\cwordtm\data\cuv.csv' ...

```
In [4]: # Extract the NT Scripture for Word Cloud
text_list = util.get_text_list(cdf[cdf.testament==1]) # Load New Testament Script

# Use Internal Image Mask
viz.chi_wordcloud(text_list, bg='black', image=1)
```

Building prefix dict from the default dictionary ...

Loading Chinese vocabulary 'D:\Dev\Anaconda3\lib\site-packages\cwordtm\data\bible_vocab.txt' ...

Loading model from cache C:\Users\johnnyc\AppData\Local\Temp\jieba.cache
Loading model cost 0.527 seconds.

Prefix dict has been built successfully.

Building prefix dict from D:\Dev\Anaconda3\lib\site-packages\cwordtm\dictionary\dict.txt.big.txt ...

Loading model from cache C:\Users\johnnyc\AppData\Local\Temp\jieba.u819f581d122236472c15f14136fc73d9.cache

Loading model cost 0.919 seconds.

Prefix dict has been built successfully.

D:\Dev\Anaconda3\lib\site-packages\wordcloud\wordcloud.py:106: MatplotlibDeprecationWarning: The get_cmap function was deprecated in Matplotlib 3.7 and will be removed two minor releases later. Use ``matplotlib.colormaps[name]`` or ``matplotlib.colormaps.get_cmap(obj)`` instead.

```
self.colormap = plt.cm.get_cmap(colormap)
```



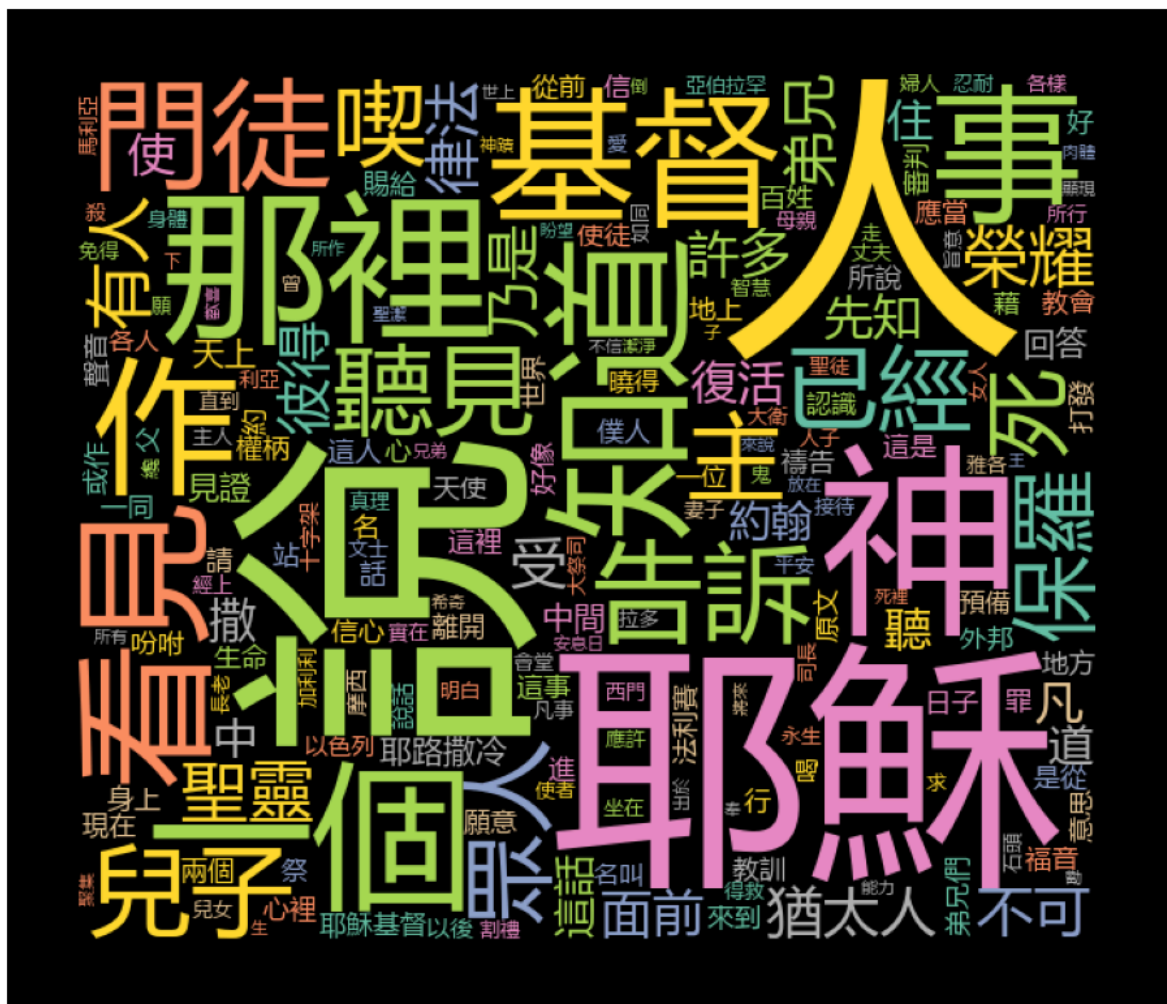
```
In [5]: # Use External Image Mask
viz.chi wordcloud(text_list, bg='black', image="rectangle.png")
```

```
Building prefix dict from D:\Dev\Anaconda3\lib\site-packages\cwordtm\dictionary\dict.txt.big.txt ...
Loading model from cache C:\Users\johnnyc\AppData\Local\Temp\jieba.u819f581d122236472c15f14136fc73d9.cache
Loading Chinese vocabulary 'D:\Dev\Anaconda3\lib\site-packages\cwordtm\data\bible_vocab.txt' ...
```

```

Loading model cost 0.910 seconds.
Prefix dict has been built successfully.
D:\Dev\Anaconda3\lib\site-packages\wordcloud\wordcloud.py:106: MatplotlibDeprecati
onWarning: The get_cmap function was deprecated in Matplotlib 3.7 and will be remo
ved two minor releases later. Use ``matplotlib.colormaps[name]`` or ``matplotlib.c
olormaps.get_cmap(obj)`` instead.
  self.colormap = plt.cm.get_cmap(colormap)

```



Identify Cited Sources in OT Scripture for Specified NT verses

```
Building prefix dict from D:\Dev\Anaconda3\lib\site-packages\cwordtm\dictionary\dict.txt.big.txt ...
Loading model from cache C:\Users\johnnyc\AppData\Local\Temp\jieba.u819f581d122236472c15f14136fc73d9.cache
Loading Chinese vocabulary 'D:\Dev\Anaconda3\lib\site-packages\cwordtm\data\bible_vocab.txt' ...
Loading file 'D:\Dev\Anaconda3\lib\site-packages\cwordtm\data\cuv.csv' ...
Loading file 'D:\Dev\Anaconda3\lib\site-packages\cwordtm\data\book_categories.csv' ...
( 1) 羅 10:5 摩西寫著說、『人若行那出於律法的義、就必因此活著。』
Loading model cost 0.910 seconds.
Prefix dict has been built successfully.
```

- (2) 羅 10:6 惟有出於信心的義如此說、『你不要心裡說、誰要升到天上去呢．就是要領下基督來．
- (3) 羅 10:8 他到底怎麼說呢．他說、『這道離你不遠、正在你口裡、在你心裡。』就是我們所傳信主的道。
- (4) 羅 10:11 經上說、『凡信他的人、必不至於羞愧。』
- (5) 羅 10:13 因為『凡求告主名的、就必得救。』
- (6) 羅 10:15 若沒有奉差遣、怎能傳道呢．如經上所記、『報福音傳喜信的人、他們的腳蹤何等佳美。』
- (7) 羅 10:16 只是人沒有都聽從福音．因為以賽亞說、『主阿、我們所傳的有誰信呢。』
-> 0.6723 賽 53:1 我們所傳的、〔或作所傳與我們的〕有誰信呢．耶和華的膀臂向誰顯露呢。
- (8) 羅 10:18 但我說、人沒有聽見麼．誠然聽見了．『他們的聲音傳遍天下、他們的言語傳到地極。』
- (9) 羅 10:19 我再說、以色列人不知道麼．先有摩西說、『我要用那不成子民的、惹動你們的憤恨．我要用那無知的民、觸動你們的怒氣。』
-> 0.5403 申 32:21 他們以那不算為神的、觸動我的憤恨、以虛無的神、惹了我的怒氣、我也要以那不成子民的、觸動他們的憤恨、以愚昧的國民、惹了他們的怒氣。
- (10) 羅 10:20 又有以賽亞放膽說、『沒有尋找我的、我叫他們遇見．沒有訪問我的、我向他們顯現。』
-> 0.6651 賽 65:1 素來沒有訪問我的、現在求問我．沒有尋找我的、我叫他們遇見．沒有稱為我名下的、我對他們說、我在這裡、我在這裡。
- (11) 羅 10:21 至於以色列人、他說、『我整天伸手招呼那悖逆頂嘴的百姓。』
-> 0.6086 賽 65:2 我整天伸手招呼那悖逆的百姓、他們隨自己的意念行不善之道．