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ology@github

Zen Markov Machine

2018-08-23 BY GENE

Today I used the [requests](#) and [BeautifulSoup](#) Python libraries to harvest 101 [Zen koans](#). Next I used the [NLTK](#) and [markovify](#) libraries to generate random statements:

```
import sys
import os
import nltk
import markovify

def get_files(path):
    file_list = []
    for fn in os.listdir(path):
        name = path + '/' + fn
        if name.endswith('.txt'):
            file_list.append(name)
    return file_list

def get_sentences(files):
    sentences = []
    for f in files:
        fh = open(f, encoding='ISO-8859-1')
        data = fh.read()
        fh.close()
        sentences.extend(nltk.sent_tokenize(data))
    return sentences
```

```

folder = sys.argv[1]      if len(sys.argv) > 1 else 'Star-Trek'
n      = int(sys.argv[2]) if len(sys.argv) > 2 else 10
chars  = int(sys.argv[3]) if len(sys.argv) > 3 else 100
states = int(sys.argv[4]) if len(sys.argv) > 4 else 2

files = get_files('/Users/gene/Documents/lit/' + folder)

sentences = get_sentences(files)

text_model = markovify.Text(sentences, state_size=states)

for i in range(n):
    #print(text_model.make_sentence())
    print(i, text_model.make_short_sentence(chars))

```

This code lives on my machine and assumes a directory of text files to process (and Star-Trek is one!) Anyway, here are some Markov generated Zen statements:

```

In [73]: run markov.py Koan 10 500
0 He grew so skillful in these arts that his nephew, whom he had used to ve
1 He obtained milk from his heart to heart, and in this life and with this
2 He changed his name to Tekisui, which means a drop of which is the founda
3 He apologized profusely to the point of satisfaction.
4 The elder one was learned, but the more seemed to have gained for having
5 The nephew seemed pleased to meet a traveler to deliver.
6 When he next appeared before his teacher for a painting.
7 In the early days of the illuminated ones as flowers appearing in one's e
8 She met a Shinshu priest who taught her the name of the mountain where he
9 Stingy in Teaching A young wife fell sick and died.

```

Pretty vague/schizophrenic... Here are a couple choice ones though:

- “Study Zen in that instant.”
- “When witnessing the good action of another, advise yourself.”

Anyway, after studying the output of this over different groups of documents, I have found that the works of Shakespeare offer the best simulated sentences:

```

In [191]: run markov.py 'Shakespeare' 10 200

```

0 I speak in his dishonor dies, Or my true complaint, And given grace a dou
1 In this hot love on fortune tend: For who hath read to her?
2 Worthy fellowes, and like a peasant, obscuring and hiding from me anon: G
3 Go to, a bargain well is not Troilus in some other sort then your selfe;
4 I should be made of grapes.
5 The seaman's whistle Is as a performance Do's an irresolute purpose Kin.
6 Alas, alas: It is well I haue issue a my shoulders, no sighes but a hot I
7 You may wear it as it were the means to pay thee bounteously, Conceal me
8 Give me thy mind; I cannot draw a deed of gift After his brother: and imp
9 I had been made for me; I had as lief have been often burst, and now forw

Haha :-)

What about the Meditations by Marcus Aurelius?

```
In [3]: run markov.py 'Misc/Meditations' 10 200 3
```

0 To follow reason for ordinary duties and actions is common to him and to
1 For there is not anything.
2 For thou must consider from whence it came, of what things they seek afte
3 If therefore nothing can happen unto anything, which is not incidental un
4 So one, so another: and all things in the world hath in the ordinary cour
5 The third and last, to them that are at the point of death.
6 The sum then of all; whatsoever doth happen in the world, is, in the cour
7 Whereas, he should rather comfort himself, that either no sense at all, o
8 yea thou that art but for a while, is common unto all.
9 It were indeed more happy and comfortable, for a man joyfully to depart a

Hmmm.

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