

Mathematical Programming : Writing poetry

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Table des matières

Our goal

Implementation

Conclusion





« Don't use the phone. People are never ready to answer it. Use poetry. »

Jack Kerouack

- Writing two verses.
- Each verse is 12 syllables long.
- Last words rhyme together.
- Sentences make sense.

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- Index words
- Rhymes
 - Each word belongs to a rhyme class
 - The last words must belong to the same class
- Syllables
 - For each word have the number of syllables
 - The sum of syllables in each verse has to be 12
- Make sense
 - Read a long text
 - Compute how frequently one word follows another
 - Maximize the sum of frequencies



- .dat files
- Table of words
- The empty word
- Linearization

Problems :

- Deterministic
- Time of the universe



- Choose the rhyme randomly
- Split and overlap : two tables of 7 words



- Syllable by syllable
 - Drop the 12-syllables constraint
 - Need to have real words?
 - Too strong
 - Look like real words



- Construct the sentence word by word from the end
- Knapsack problem
- Works pretty well



- Construct the sentence 3 words by 3 words from the end
- Best achievement so far

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*« LA PROSE ET DE L ON NOMME ETIQUETTE
PROSE ET J AI VU PAR TOUS LES CIEUX ALOUETTE »*

- Have better definitions of :
 - The number of syllables (too rough)
 - Liaisons ...
 - The rhyme classes (too strong)
- Have more powerful solvers
- Read longer texts