

Variables	Groups	Data Type	Descriptions
Latin alphabet	Word units	Nominal	Indicates the character or symbol of the Latin alphabet.
Latin alphabet type	Word units	Nominal	Indicates the type of the Latin alphabet, i.e., vowel and consonant.
Word class	Word attributes	Nominal	Indicates the grammar class of the word. For example, Earth (noun) and ate (verb).
Word sentiment	Word attributes	Nominal	Refers to the semantic profile of the word in scale of negativity and positivity.
Repeated word	Semantic relations	Relational	Indicates a word that repeated multiple times throughout the poem.
Word frequency	Semantic relations	Ordinal relational	Indicates how often the word is repeated in the poem.
Phonetic alphabet	Phonetic units	Nominal	Indicates the IPA character of the phonetic alphabet.
Phonetic type	Phonetic units	Nominal	Indicates the type of the IPA character, i.e., vowel, consonant and punctuation.
Vowel length	Phonetic attributes	Nominal	Indicates the different type of vowel length either long, half-long or extra-short.
Stress	Phonetic attributes	Nominal	Shows the different type of stress, i.e., primary and secondary stresses.
Syllable break	Phonetic attributes	Nominal	Indicates the break in a phonetic word. Represents units that can be found in a set of phonological sounds.
Sound frequency	Phonetic attributes	Ordinal	Indicates how often combination of sound is repeated in the poem.
Structure break	Phonetic attributes	Nominal	Indicates the lineation and stanza breaks.
Vowel position	Phonetic features	Nominal	Indicates the position of an IPA vowel in the mouth according to part of the tongue is raised and how far the tongue is raised inside the mouth. Used to define a vowel's qualities by examining its position on tongue in terms of height, backness and roundedness.
Consonant features	Phonetic features	Nominal	Indicates the place of articulation and type of sound of an IPA consonant.
Type of relation	Phonetic relations	Nominal	Indicates the type of relation between two sets of sound within words.
End rhyme	Phonetic relations	Relational	Indicates rhyme that occurs at the end of a verse line, i.e. the final syllable of a line.
Internal rhyme	Phonetic relations	Relational	Indicates rhyme that occurs within a single verse line.
Assonance	Phonetic relations	Relational	Indicates the repetition of the same vowel sound within words, e.g. stool / food. A pair of words can be assonant without necessarily rhyming.
Consonance	Phonetic relations	Relational	Indicates the repetition of the same consonant sound at the end of the words, e.g. lack / sock. A pair of words can be consonant without necessarily rhyme.
Alliteration	Phonetic relations	Relational	Indicates the repetition of the same consonant sound at the beginning of the words, e.g. cat / cod.
End rhyme frequency	Phonetic relations	Ordinal relational	Indicates how often the end rhyming sound is repeated in the poem.
Internal rhyme frequency	Phonetic relations	Ordinal relational	Indicates how often the internal rhyming sound is repeated in the poem.
Assonance frequency	Phonetic relations	Ordinal relational	Indicates how often the assonance sound is repeated in the poem.
Consonance frequency	Phonetic relations	Ordinal relational	Indicates how often the consonance sound is repeated in the poem.
Alliteration frequency	Phonetic relations	Ordinal relational	Indicates how often the alliteration sound is repeated in the poem.

Table 1: The resulting list of variables in a poem that we have defined after our observation, interviews and questionnaires with the domain experts.