A Chorus Section Detection Method for Lyrics Text

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Background

Potential Application

Key Idea

Nine SSMs

Structural Feature

Some expressions of lyrics tend to appear in chorus sections?

Chorus-section Detection Model

Training Data

Dataset

- RWC-MDB-P-2001 (20K Songs)
- Japanese (91,459 songs)
- English (93,788 songs)

Experimental Results (1)


Experimental Results (2)


Experimental Results (3)


Experimental Results (4)


Conclusion

- LSTM
- Bi-LSTM
- CNN
- Average of word vectors using pre-trained word2vec,
  vectorization and the ReLU activation function.
- Each resulting matrices is a fixed window size.
- The input of the CNN is nine sub-SMs.
- The SSM forecasting rate on correctly detected chorus sections
  is better than 84.2% for English and Japanese SSMs.
- The proposed method is the best for the chorus section Detection.
- Some expressions of the chorus section are captured by
  the phonetic transcription of lines. For example, the phonetic
  transcription of the lines contains more information such as
  “I love you” and “I wanna” than those that do not appear
  in the chorus section.
- The song is from the RWC Music Database (RWC-MDB-P-2001).
- The proposed method is the best for the chorus section
  Detection.
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